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PREHISTORIC RESEARCHES IN INDIA

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IN this article, an attempt has been made to review briefly the work which has been done or is being carried on in Indian prehistory during recent years by the institutions and scholars who are working in different parts of India, and to discuss the main and immediate problems by which both archaeologists and anthropologists are faced in this country. Certain lines of future research have also been suggested in the end.

The Archaeology Department of the Government of India, which is supposed to undertake exploration and research in all branches of archaeology, has not in recent years done much work in connection with prehistory proper. In 1947, departmental excavations at Brahmagiri carried out under Wheeler provided a useful sequence-dating for the Megalithic culture and Chalcolithic axe-culture in Mysore, the fixed point in the sequence-dating being the Andhra-Satavahan culture (1st century A. D.). The Southern Circle (Madras) of the Archaeology Department, which since 1944-45, has been carrying on exploration of megalithic monuments in the south, has undertaken the excavation of selected megalithic sites (since 1949-50) in Chingleput district in Madras which have yielded a complex of interes-

ting culture traits. These sites however have not yet been dated. A report of the excavations is shortly to be published. In this respect, the problem before the Archaeology Department is mainly two-fold : to discover the identity and affiliations of the so-called iron-using megalithic people and to establish the chronology of their culture in relation to earlier and later culture-phases in the south and to test Wheeler's conclusions about dates. The Southern and SE Circles of the Department are also engaged in the typological studies of the microlithic industries found in datable contexts at several sites including the Tinnevelly teris, Kurnool and Bastar (at Chitrakot). The SE Circle under Krishnaswami has also taken up cave exploration in the limestone regions in the Araku valley in Visakhapatnam for probable occupation sites of early man. The Western Circle (Poona) of the Department, which under Deshpande conducted excavation at Bahal in East Khandesh, has discovered a microlithic culture in the lowest levels associated with painted ware, overlain by a culture with copper and iron objects and red-and-black pottery of the Megalithic type of S. India.

The main object of the Department of Archaeology is apparently to fill in the wide gap that exists between the Harappa culture and the early historic cultures of N. India. Recent archaeological explorations by the Department carried out by Ghose in Bikaner in Rajasthan have revealed more than a hundred ancient sites in the valleys of the Saraswati and Drishadvati containing archaeological objects ranging from the prehistoric Harappa period down to comparatively recent historical times. Besides unfolding an interesting sequence, it shows that the great Harappa culture extended far beyond the Indus valley eastwards to near the heart of the great plains of India. Excavations of a few selected mounds in the explored part of the Saraswati have confirmed the relative sequence of the three main cultures found : Harappa (earliest), Grey ware (later) and Rajmahal, the last flourishing in the early centuries A. D.

Of the Universities engaged in research in Indian Prehistory, the Department of Anthropology, University of Calcutta, which is the pioneer institution in teaching and research in the subject, is now engaged in the Stone Age and Pleistocene researches

mainly in three regions—Singhbhum, Manbhum and Mayurbhanj and adjacent areas, and recently in the Siwalik region in PEPSU (the last, jointly with the University of Lucknow). Its major work has been the exploration and excavation of the Stone Age sites in Mayurbhanj, and in this respect its main aim has been and still is to geologically date the implementiferous laterites and boulder conglomerates and gravels. As a result of recent studies of sections on the Burabalang, a climatic sequence has been tentatively established. Still further investigation is necessary in order to substantiate the sequence obtained. In its field researches on the Stone Age, the Department has consistently emphasized the need of dating ancient human cultures with the help of geological and climatic evidence instead of using comparative typology for this purpose. For, in the present state of our knowledge, the spatial as well as vertical spread of different tool types is very inadequately known. Though the Department has trained personnel, we suffer from a chronic lack of research funds, which the University so far has been unable to provide. Under the circumstances, the Department has not been able to take up the responsibility of any large research project. If appropriate funds are available, it proposes to take up field work in selected areas in three geologically contrasted tracts, namely, (i) the coastal lateritic regions of Orissa and adjacent areas in Madras, (ii) the upper and middle Narmada valley in Madhya Pradesh and (iii) the Siwalik regions in E. Punjab and PEPSU. The main object is to attempt a correlation between the Pleistocene in various parts of the country. The Department has also drawn up a detailed plan (since submitted to the Central Government) of exploring certain caves in Sundargarh in Orissa. It has at the same time taken up in Orissa the study of selected ancient arts and crafts reminiscent of the prehistoric ages. Thus a detailed account has already been published of the lost-wax process of metal casting, a process which was widely prevalent in prehistoric times and which is still practised by a diminishing band of hereditary craftsmen in the state of Orissa.

The Deccan College Post-Graduate Research Institute of the Poona University is working upon the problem of a major *hiatus* in Indian prehistory. Its field researches are confined to

western India, mainly in Gujarat and adjacent parts of the Deccan. The Institute, through the efforts of Sankalia and his team of workers, has done considerable work in Stone Age exploration and discoveries in the Sabarmati, Mahi, Narmada and Godavari valleys. The Institute made an important discovery of human skeletons associated with a microlithic industry at Langhnaj in N. Gujarat. The broad results of the various expeditions have been published by the Deccan College Post-Graduate Research Institute in its bulletins and monographs. A considerable number of sites and sections however remain geologically undated. In 1949 prehistoric researches in Gujarat received an impetus through the visit of Dr. F. E. Zeuner of London University. Zeuner has been engaged since then on the problem of the Stone Age and Pleistocene chronology in Gujarat. He has drawn up a stratigraphic and climatic succession for the Sabarmati area. Although the exact geological age of the Sabarmati industry yet remains hypothetical, he has suggested a tentative age, which can only be confirmed or modified by further geological investigation. Recent excavations conducted by the Institute in upper Godavari at Nasik and adjacent areas have revealed several cultures from the Palaeolithic period to the Chalcolithic period and then far down to the 17th century A. D. The latest project undertaken by the Institute is an archaeological expedition in the Narmada valley. In the first season (1952-53), exploration and excavation at Maheswar and its vicinity on the Narmada have been undertaken. The principal object is to obtain a sequence from the earliest down to modern times, and incidentally to test the validity of the traditions recorded in the Puranas. For this purpose the Institute has received a grant of Rs. 9,000/- from the Universities of Poona, Bombay and Baroda and Rs. 1,000/- from the Government of Madhya Bharat, besides some grants from non-official sources.

A recent survey conducted in middle Gujarat by the Department of Archaeology, Baroda University, in collaboration with the Deccan College Research Institute of Poona has revealed a number of datable Palaeolithic and Microlithic sites in the Mahi valley. According to Subba Rao, the Palaeolithic and Microlithic industries of the Mahi are typologically similar to

those of Sabarmati in northern Gujarat. The University has taken up a systematic archaeological survey of Gujarat and Kathiawad. Recently, in a suburb of Baroda, a rich microlithic layer has been discovered at the base of the historic period.

The Department of Archaeology of the University of Saugor, in course of exacavations at Tripuri in Jubbulpore, has discovered a series of microlithic tools (including burins) associated with black-and-red pottery below a stratum of Mauryan age. According to M. G. Dikshit, this pottery is unlike those of Nasik, Bahal and Brahmagiri.

From the foregoing review, it is evident that the main problems in Indian prehistory have been two-fold : the problem of the Pleistocene and post-Pleistocene chronology and the problem of *hiatus* in prehistoric culture sequence. The Pleistocene is characterized by multiple climatic fluctuations with which the prehistory of human cultures is intimately related. The Palaeolithic cultures of the Soan-Indus valleys in NW India (now in Pakistan) have been dated in terms of the Himalayan glacial cycle which has been correlated to the terrace sequence in the periglacial plains of the Punjab. Granting this dating to be correct, it yet remains to be seen in how far this sequence can be correlated with the Pleistocene sequences of regions remote from the periglacial tracts. The problem of the relation of the tropical pluvials to the glacial phases in the north has not yet been solved, and we are not now in a position to equate a tropical pluvial with a particular glacial phase in the mountains. In the case of terrace system produced by climatic changes, no simple generalization, that particular types of climatic shift are responsible for aggradation and degradation respectively, can apply. Each terrace system, particularly in a non-glaciated region, has to be carefully examined in the context of its own characteristic setting before any attempt can be made to correlate them to a glacial cycle. It is unfortunate that such terraces are frequently correlated on the basis of similarity of tool-types ; this is obviously premature in the absence of detailed local studies. In a given region, we must first attempt to reconstruct a climate sequence on the basis of available local evidence and then to use factors of correlation. Absence of plant and animal

fossils may render difficult this correlation, but there should be no hurry to establish relative geological age by treating artifacts as 'guide-fossils', when their index-value is only known in an obscure manner.

The age and origin of the laterites and lateritic weathering in tropical India is a problem of some magnitude, which concerns both geologists as well as archaeologists. Here also, no simple generalization of their age can be made, for they range in age from the Tertiary to Recent periods and have been formed in a complex of fluctuating climates and consequent physico-chemical change. As the early Stone Age cultures of Peninsular India are connected with the detrital laterites, the age of the latter, when properly determined, would throw light on the problem of chronology of the Old Stone Age cultures of Peninsular India.

With regard to the *hiatus* in the sequence of prehistoric cultures in India, that which lies between the Palaeolithic and Neolithic periods demands our attention first. The Mesolithic period is one of *transition* and occupies an intermediate position in respect of the two great Stone Age cultures. Geologically it belongs to the post-Pleistocene (post-glacial) recent to sub-recent times when the climate gradually changed and passed into near present-day conditions. In India, except in rare sites, the *hiatus* remains largely unaccounted for. Surface finds have no chronological value. We must look for stratified or datable finds. Unless we can reconstruct the post-Pleistocene soil or climatic sequence in a given region and can fit in the relevant human industry that truly belongs to that cycle, we can hardly prove the case of a true Mesolithic phase in India. The so-called microliths occur almost all over the country and have been found both in prehistoric and historic milieu. Except perhaps in a few sites, such as in the Potwar (W. Pakistan), Godavari and Krishna basins and the Tinnevelly teris, we have no datable evidence as yet to prove that the microliths anywhere date well within the transitional sub-recent or that they truly succeed and overlie Palaeolithic and Neolithic cultures respectively. In a few sites such as in the Narmada, Kurnool and Bombay (Khandivli), the microliths appear to succeed Upper Palaeolithic blade industries. In Khandivli, the microlithic

phase appears to follow Iron Age pottery. This needs to be substantiated by further field work. According to Todd, the Bombay microlithic industry dates prior to 200 B. C., probably 500 B. C. In the Sabarmati valley, the microlithic pre-pottery phase (separated from the Palaeolithic deposit by a great thickness of strata) is also followed by Iron Age pottery phase, which according to Zeuner, is not older than 2000 years and thus the microlithic phase of Gujarat is quite late—early historic or the end of the prehistoric period. In Brahmagiri, the microlithic industry is a part of the Chalcolithic axe-culture which is dated by Wheeler to the 1st millennium B. C. to 200 B. C. In Bellary in Sanganakallu, where excavations, according to S. Rao, have confirmed and extended the Brahmagiri evidence, the megalithic pottery at the top providing the fixed datum for sequence- dating of underlying Microlithic and Neolithic cultures, two phases of microliths occur, one associated with patinated flakes and the other associated with a full-fledged Neolithic industry.

Microlithic tool-types in India are mostly simple flakes ; only very few are of evolved types to admit typological correlations with Europe or Africa. Where, as in a few sites, such types as lunates, trapezes or burins occur, these may be usefully correlated on the basis of typology to the Mesolithic artifacts of Europe or Africa ; but this must be substantiated by environmental evidences before any judgement regarding dates is pronounced. At the present moment, the most that we can say is that the microlithic industries in India may originally have been of considerable antiquity but they remained in use in the Neolithic, Chalcolithic and Iron Age megalithic cultures and lingered down to early historical times.

The contact between true Neolithic and Copper-Bronze Age cultures in N. India is not clear. Field researches on the Neolithic culture have not been undertaken in N. India in recent years nor do we know anything clearly about its culture traits. True Neolithic culture is a Stone Age culture, with pottery, animal husbandry, agriculture, polished tools (stone axes and adzes) and dwellings as its distinguishing traits. The Indian Neolithic culture has yet to be established in this context.

Some sites however have been discovered and useful work done, which reveal possibilities of throwing light on the Neolithic problem in India. In the north, the work done by de Terra and Paterson at the stratified sites at Burzahom and Nunar may be followed up. Rupar and the adjacent regions on the Sutlej in E. Punjab and the ancient river valleys in Rajasthan may be more fully explored for cultures earlier than the Harappa. Gujarat and the adjacent Deccan have shown possibilities of revealing prehistoric food-producing settlements in datable context. The old sites in the middle Gangetic valley may also be re-investigated. In the south, excavations at Brahmagiri and Sanganakallu have shown great potentialities of Neolithic researches and have opened up a new sequence. Here in Peninsular India, the Neolithic culture appears to succeed the Iron Age megalithic culture and there is a microlithic substratum of the Neolithic culture in Bellary. Further researches elsewhere in Mysore and adjacent Madras are likely to reveal lines of contact and true succession. A systematic study of the distribution of certain types of Neolithic celts, such as those with oval and rectangular cross-sections, may reveal interesting results about their probable centres of dispersal and relative age. This would verify the tentative conclusions of Worman that the so-called 'neolithic' celts appear to be derived from the east and that certain types are earlier in date than others.

Having briefly stated the main problem round which researches in Indian prehistory are being carried on in India now, the writer would now venture to suggest some lines of future research.

1. To verify de Terra's Stone Age and Pleistocene chronology in Punjab, intensive geological field work in the Siwalik regions in E. Punjab and PEPSU may be undertaken. Palaeolithic artifacts of Soan types occur in the terraces at certain places as at Nalagarh in PEPSU, and here is a promising region to explore for fossil remains of early man and his contemporary mammals.

2. To undertake fuller geological and palaeontologic (environmental) studies of the Narmada valley Pleistocene

in order to find out the true sequence and types of human cultures in this important region.

3. To corroborate the Stone Age sequence in the plains of Peninsular India by—

(a) Cave exploration, and excavation of selected caves. This may also reveal skeletal remains of fossil men and mammals.

(b) Further geological observations of Pleistocene sections in open stations on the south-east coast with a view to scientifically dating the implementiferous laterites, boulder conglomerates and gravels.

4. Sand-dunes which may contain artifacts and fossils have not been studied in India and in this respect there is great scope for research. The Tinnevelly red dunes (teris) containing microliths should be carefully investigated and the dune chronology determined. Inter-dune depressions and surfaces and dune sand and soil layers may also be explored in dune regions for probable buried soils, peat and lacustrine deposits, if any. In Poland, Mesolithic artifacts (Swiderian) have been found in buried humus layers and correlated with post-glacial climatic succession by Clark.

5. Another line of research unattempted in this country is the application in archaeology of geochronological methods of absolute dating. Requisite field data being available, the modern techniques of pollen analysis, varve counting, radiocarbon may be usefully attempted for dating ancient human cultures.

6. A pressing line of research in Asian prehistory is to interpret and correlate the lower Palaeolithic pebble, core and flake cultures found in northern, western, central and southern India with those found in other parts of Asia notably in China, Burma, Java and Indo-China and to examine the hypothesis advanced by Movius of the existence in India, as elsewhere, of a pre-handaxe pebble-tool (chopper and chopping tool) horizon comprising a sort of basic substratum.

7. An aspect of anthropological research proposed by Haimendorf which is yet unattempted and which has the prospect of providing evidence for typological correlations between late

Stone Age cultures and aboriginal culture-types in India is the extension of archaeological excavations into the more primitive tribal tracts. For this purpose, anthropological studies of the culture history of the primitive tribes, low in the ladder of cultural development, should first be undertaken with a view to finding out the earliest tribal autochthones. We are yet in the dark about the relative antiquity of the tribal cultures as well as actual details of their technology. Wheeler's sequence-dating has brought to light the upper limit of the so-called polished axe-cultures in Mysore to 200 B.C. Archaeological excavations in selected sites in tribal tracts, where living representatives of pre-literate cultures are domiciled, may reveal sequences of cultural development from the late Stone Age to the present day. An exploration of ancient burial sites in tribal tracts and opening up of selected graves may throw light on this aspect of palaeo-ethnology. A study of the distribution of primitive arts and crafts may also reveal useful results in this line.

At present our needs in prehistory lie not so much in discoveries of sites and taxonomic studies of artifacts as in the critical analysis of what has been already discovered in recent years in order to knit together the pieces into an intelligible coherent picture. Dating is undoubtedly one of the main aims of archaeology and it is therefore incumbent upon us to reconstruct along scientific lines a chronology and environmental background of the cultures discovered and for this purpose to collect as much field data as possible from the new as well as old sites. It is only on a synthesis of the various field data—geological, environmental and archaeological, that we can build up a true chronology. Certain new lines of research as indicated in the foregoing pages are also likely to remove contradictions and gaps in our knowledge. For this purpose, co-ordination in research is absolutely essential in regard to the activities of all the institutions concerned.

THE AUTOCHTHONES OF INDIA

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Introduction

The aboriginal tribes of India have been grouped in several ways under one generic name by various authors and so far there has been no agreement on this score. Lapicque (Keane, 1920) was probably responsible for the term Pre-Dravidian; Ruggeri (Chakladar, 1921) named it Australoid-Veddaic while Chanda (1916) was in favour of the term '*Nishada.*' Eickstedt (1939) has used the term Veddid for those having closer affinity with the Veddas of Ceylon, while he has coined a number of other terms for the other aboriginal groups. Sewell and Guha (1929), in trying to find out the physical affinities of the Nal race, have described the Tamils and the Veddas as 'descendants of the original Proto-Australoid and Proto-Negroid blend'. They (1931) have also found the Proto-Australoid type occurring among the Mohenjodaro skeletal remains. Hutton (1933) followed the last two authors and used the term Proto-Australoid extensively in his Census Report for 1931. He even grouped the Veddas under Proto-Australoid. Guha in all his later works has consistently used the term Proto-Australoid. The latter term is not justified scientifically, for the Australoids have been recognized, since Huxley's time in 1870, as one of the fundamental stems in the evolutionary tree of man and we have no clear idea of the prototype of an Australoid.

The term Proto-Australoid owes its origin to Dixon (1923), who in writing his famous book, ***The Racial History of Mankind,*** chose a trinity of cephalic characters for classifying mankind. Tozzer and Coon (1943) in their preface to the Dixon Memorial Volume wrote as follows : 'Against the advice of his colleague, Professor Hooton, he abstracted all available published

material on the craniology of contemporary peoples and fitted each skull into a framework of categories based on the inter-relationships of three criteria : the cranial index, the length-height index of the skull, and the nasal index. * * Although this arbitrary procedure met with extensive criticism, and although no living physical anthropologist of repute would follow it to-day, his study of the craniology of all parts of the world on this basis served to upset a number of misconceptions as to racial relationships and pointed the way to other studies pursued by more tenable techniques. Dixon was the first, for example, to indicate by means of scientific data the composite racial character of the American Indians, a conclusion which has been substantiated by more recent work in archaeology as well as in physical anthropology. To his death Dixon referred to *The Racial History of Mankind* as "my crime", but few of us thought that he regretted having committed it'.

Hooton (1930) introduced changes in Dixon's terminology ; but Guha (1951) has apparently been still using them, at least so far as the term Proto-Australoid is concerned. His point of view is neither clear, as will be evident from the following of his remarks (1935) : 'The Australoid type found so largely in the present day Indian aborigines, is however abundantly represented both in the Southern Indian and Chota Nagpur sites and judging from the description given by the "Vedic Aryans" there seems hardly any doubt that they were the "Nisadas" who formerly as to-day occupied the hills and forests of India. Various names have been given to this race such as "Pre-Dravidian", "Proto-Australoid" and "Veddoid" but none of them seems to be as appropriate as "Nisadic" the generic name given to them by the "Vedic Aryans", and resuscitated by Mr. Chanda and which should henceforth be used to designate the non-Negritoid Indian aborigines'.

So long the Australoid is regarded as one of the basic stems of mankind and its prototype is unknown, the use of the term Proto-Australoid seems to be unjustified. And above all, Dixon's admission, which is worthy of a scientist of his eminence alone, should be respected.

Hooton (1930) in his analysis of the Pecos Pueblo-crania has replaced Dixon's Proto-Australoid by the term Pseudo-Australoid, while he has similarly renamed the Proto-Negroid as Pseudo-Negroid. It is worthwhile quoting Hooton here as it is relevant to South Indian affinities : 'The bulk of this Palae-American population must have consisted of people in whom the features of these three types (Pseudo-Australoid, Pseudo-Negroid, and Basket-Maker) were combined in various ways. If I were to hazard a guess as to their appearance it would be that they were not unlike some of the Dravidian inhabitants of Southern India - short statured, slender in build, dolichocephalic, mesorrhine or platyrrhine, mesognathus and with face lacking the massive size and jutting malars characteristic of the later Indians. The skin color was probably brown and the hair form inclined to wave or to curl than in existing American Indian types.'

In the present paper an attempt has been made to examine the Australoid affinities and along with it the Veddid affinities of some of the aboriginal tribes of India. For this purpose Eickstedt's terminology ending with—id, i.e., Veddid, has been used. The term is in harmony with taxonomy and appears to be more precise than Veddoid or Veddaic. Eickstedt (1939) has already discussed the antiquity of this nomenclature. Guha (1951) in his recent paper recognizes the genetic relationship of the Indian aborigines with the Australians but objects to the generalized use of the term 'Veddoid'. We will discuss it towards the latter part of this paper.

The Veddids in India and abroad

The Veddid tribes are still numerous in the jungles of South India. Although the few existing Veddas* are now locked up in Ceylon and were in the same place ever since they came to the notice of the anthropologists, it does not necessarily mean

*Dr. R. L. Spittel, a member of the Vedda Welfare Board and a famous authority on the Veddas, wrote to the writer in a personal communication : 'Most of the communities have quite disappeared in the last 25 years and even those that are left, are practically indistinguishable from Sinhalese or Tamils ; and except for a very few, resent being stigmatised as Vedda'.

that they originated in Ceylon. On the other hand, what appears more probable is that they crossed over to Ceylon in course of their wanderings when the land bridge was in existence or when the sea level was low enough to be crossed over. The level of the sea sank to a depth of at least 40 fathoms during the beginning of the Ice Age in the Sunda shelf (Asiatic Bank) in consequence of the growth of the Pleistocene ice-caps (Molengraaff, 1921). The cave life of the Veddas points to an association with a rigorous climatic condition. Osman Hill (1941), whose monumental work on the existing Veddas can be reckoned as next to that of the Sarasins, is of opinion that the Veddas are the autochthones of the island. The Seligmans (1911) concluded that the Veddas belonged to the same race as the jungle tribes of South India. Howells (1937) also concurs with the general Australoid form and he finds it pronounced among the Veddas.

In South India, tribes having Veddid affinities have, so far, been classified under the general term Pre-Dravidian and a detailed study of some of the tribes, so far studied anthropometrically, has been attempted at the end of this paper. A complete list of these tribes has yet to be made and the following can be included tentatively ; the Uralis, the Kannikars, and the Muthuvans of Travancore ; the Paniyans of Wynad, Malabar ; the Sholaga, the Kurumba, and the Irula of the Nilgiris ; the Chenchus of Hyderabad and the Kadars and the Malsars of Cochin. Apart from the above southern concentration, the nothern extension is represented by the Mālè of the Rajmahal Hills and the Pahiras of the Dalma Hills, Manbhum. The Veddid element is strongly represented in both the above two tribes and both of them are yet locked up in the inhospitable hills where forests are gradually being encroached upon and there is a tendency of their coming down from the hills. The hills and the forests are intimately bound up with the Veddid way of life, and the fact that they were at one time numerous in the Southern and the Central Indian jungles will be apparent from the above geographical distribution. Veddid features are also sparsely met with in the Gangetic delta and its neighbourhood and there are certainly 'indications of a deeply submerged Australoid element'

(Howells, 1937). Short stature, dolichocephaly and above all the 'retained infantile proportions" are the characteristics of the Veddid race.

Outside India, Veddid pockets have been reported on the west of India in Hadhramaut in Southern Arabia and in Persia (Coon, 1943). Towards the east of India, the Shom Pen of Great Nicobar, the Sakai of Malay Peninsula ; the Orang Mamaq, the Orang Batin (Sakai of Sumatra), the Lubu and Ulu of Sumatra (Lceb, 1935) ; the Nias Islanders (de Zwaan, 1925) ; the Toala of Celebes (Sarasin, 1906) and the Moi of the Indo-China Hills (Holbe, 1923) have been reported to have strong Veddid or mixed Veddid affinities. It should be mentioned here that the Toalas are brachycephalic and the Mois are mesocephalic and Howells finds them to be very much differing from the Australoids. The last outpost on the east is Australia. It will be thus seen that with South India as centre, the Veddids fanned out both to the east and west, and they appear at one time to have been more widespread than now.

The Australoid element has also been suspected in the American Indian. It is yet a moot problem there (Seltzer, 1943).

Australoids first, Negritos second

A good deal of misconception on the problem of racial affinities can be removed if the evolutionary order of the two fundamental racial stems of mankind, namely, the Australoid, and the Negroid or Negritoid, is settled first of all. The problem is, who evolved first ; and although opinion appears to be rather weakly divided on this point, the majority are in favour of placing the Australoids first in the line of evolution. This is in conformity with our present knowledge of genetics.

The close of the Lower Palaeolithic is marked by the advent of the Neandarthals and if the views of Sollas and von Luschan are acceptable, the Australians have to be treated as the descendants of the Neandarthals. Huxley considered the Australians to be the nearest living representative of the Neandarthals. Keith (1925) however, thinks that the Australians are not the survivors of the Neandarthals but are one of the early forms of modern man. Howells (1937) has compared the Australian

somatometric data with all available allied data and come to the conclusion: '*The Australian is not a blend but a major race, and is the most archaic race still surviving.*'

The earliest trace of the Negro dates to the Aurignacian period in the Grimaldi skeleton, to which Sollas is inclined to attribute certain Bushmen affinities. The Combe Capelle finds also belong to this period and Klaatsch emphasized its non-Neandarthalian characters and close affinity with the Australians. There is no doubt, however, that the Neandarthals appeared first in the scene and which, by implication, means the priority of the Australoids over the Negroes or the Negroids.

In an earlier publication (Sarkar, 1953) the views of Eugen Fischer were discussed, in which the latter postulated the mutation of the woolly hair, one of the chief distinguishing characters of the Negroids, from the smooth, wavy hair, and as such the existence of a wavy-haired people prior to the Negro is undoubted.

Howells shares the same view and it is worthwhile quoting him *in extenso*. Towards the concluding part of his Australian race problem he wrote (1937) :

'Let us therefore examine the reasons for believing that, of the surviving races of man, the Australian is the oldest, and the Negro group, together with the Negrito, probably the second oldest.

'Proceeding inductively, we may postulate some of the characters of the immediate and direct progenitor of Homo sapiens, from the collective evidence of fossil types and of the Primate family in general. This is not difficult. Our ancestor was probably long-headed, with a low forehead, larger brow-ridges than at present ; he was likewise more prognathous, with a larger palate and teeth and a smaller chin. Of his external characters we must ignore the color of his skin and say of his nose only that the root was probably low and broad. His hair was probably plentiful on his body, and most important of all, was probably slightly wavy. At any rate, it was certainly not woolly, and most probably was not lankly straight like that of the highest Malays and Chinese, for no Primate hair can be strictly compared with either of these forms.

'Here, then, is a reasonable picture of the proto-modern human stock. It is merely redundant to point out how much nearer such a type the Australian stands than does any other race, or to remember how convenient an adjective the word "Australoid" has become to express a primitive morphology. Furthermore the explanation of the hair form in Australia becomes a simple matter : the wavy hair does not result from the modification of a woolly-haired black people by a straighter-haired group, but has been retained from an ancestral form existing before woolly hair had ever appeared'.

In his essay on 'Physical Deterioration of Race', Howells (1940) enlarged this hypothesis : 'The rudimentary bodies, the *anlage*, so to speak, of the primary races did not, however, all bud from the common parent stock at the same time, and they have undergone specialization and progressed in the "human" direction to widely different degrees. The native Australian is a what-not full of primitive human features, is obviously the oldest race (if the phrase has any meaning), having stagnated at this low stage of development while the rest of mankind advanced ; he exhibits neither specialization nor progressiveness. The Negro, in all likehood, was next to follow the Australian into isolation, physical and probably geographical as well ; he is highly specialized but not particularly progressive.'

It is difficult to reconcile this clear view of Howells with the following remarks from his pen : 'On the other hand, the Vedda can not be linked with the Negritos, due to their dolichocephaly ; however, the forest tribes in Southern India, with their short stature, very curly hair, and facial features, can only be satisfactorily explained by the assumption of a former Negrito population.'

In order to assume an earlier Negrito population at the basis of the jungle tribes of South India we have to assume a much earlier Australoid stock, at least earlier than the present Veddids, who mutated to form the Negrito characteristics, since the process of formation is from wavy to woolly hair, or, to speak in terms of Howells, from stagnation to specialization. This is unnecessary in view of the complications involved in it and once the mutation hypothesis of Eugen Fischer is accepted we need not

grope for explanations. Fischer has pointed out that the brachycephaly of the Negritos, the further Asiatic races, the Bushmen and the Polynesian races can not be genetically brought together and he has also shown the possibility of a mutation in this character as well, in Fig. IV of his paper.

Furthermore the dominance of brachycephaly is already well known and it is difficult to believe that the brachycephaly of the Negritos has been completely wiped out if it functioned as a basic element. Brachycephaly has increased in Bengal (Sarkar, Das and Agarwal, 1953), at least, and this increase has so far remained unnoticed in this country. It is worthwhile looking for this in other parts of the country ; but in any case we have to look for it in those regions where brachycephaly is already present.

The Negrito racial strain in a submerged condition has been found by Coon (1943) in southern Arabia and here the former differs from the Veddid strain not only in hair form but also in the head form. Coon writes : 'The population of southern Arabia, aside from the Yemen, consists of two major elements - Mediterranean and Veddoid. In the Hadhramaut valley, the agriculturists are predominantly Mediterranean ; among the Bedawin, and among the wilder tribes of the Dhofar region, the Veddoid element increases in importance. There is, however, a third element - frizzly haired, short statured, round headed, which occurs among sporadic individuals, and which is presumably Negrito. Individuals possessing these traits are not to be confused with African Negro hybrid who are well recognized and who are differentiated from the rest of the population in a social sense, nor with the Somalis. The tribesmen of Cape Musandam, in Oman, are said to be predominantly Negrito'.

Coon points out the submerged Negrito strain as a 'tentative identification' and seeks confirmation 'by further work on spot'. He, however, suggests it to be 'the connecting link between the African and Oceanic Negroids'.

Australoids in Prehistory

Australoid types of crania have been found in the Indus Valley sites, which date from about 3500 B.C. Harappa has yielded

TABLE I

COMPARISON OF MEANS OF TRIBAL GROUPS (all male)

Sr. No.	Characters	Australians No.	Australians Range	Australians Mean±P. E.	Veddas No.	Veddas Range	Veddas Mean±P. E.	Chenchu No.	Chenchu Mean±P. E.	Male No.	Male Range	Male Mean±P. E.	Kannikar No.	Kannikar Range	Kannikar Mean±P. E.	Kondh No.	Kondh Range	Kondh Mean±P.E.	Sr. No.
1	Stature	239	152—187	168·30±·26	26	134—162	152·54±·83	23	164·95±·92	189	143—166	156·64±·26	140	139—168	153·17±·43	100	145—175	159·96±·37	1
2	Hd. Length.	239	173—211	189·93±·27	23	169—193	182·23±·93	23	185·17±·79	189	170—198	184·21±·27	140	175—196	184·59±·51	100	176—201	187·90±·30	2
3	Hd. Breadth	238	120—152	136·54±·23	25	122—144	132·76±·72	23	134·83±·74	189	125—147	137·23±·20	140	128—159	136·95±·40	100	127—150	138·20±·30	3
4	Hd. Height	226	98—142	124·29±·27	25	97—137	122·92±1·12	23	120·48±·85	188	119—159	133·52±·33	140	100—139	116·68±·64	100	87—140	117·20±·60	4
5	Hor. Circ. Hd.	238	479—597	532·46±·71	21	456—574	531·80±6·80	23	525·35±1·86	91	503—563	532·05±1·28	140	500—580	539·89±1·35	×	×	×	5
6	Min. Fr. Diam.	235	89—120	104·82±·22	25	92—117	103·12±·77	23	100·83±·55	187	91—108	100·54±·17	140	90—117	103·34±·33	100	92—116	100·70±·30	6
7	Bizygo. Br.	239	120—159	139·85±·23	25	103—137	117·44±·90	23	129·00±·66	189	117—144	130·98±·22	140	119—142	128·36±·34	100	118—142	131·30±·40	7
8	Bigonial Br.	239	90—121	104·46±·25	22	79—110	93·73±·98	23	93·39±1·29	188	81—112	96·89±·28	140	81—107	96·89±·36	100	84—110	97·10±·40	8
9	Nasal Ht.	238	32—67	47·33±·19	25	39—57	47·52±·76	23	48·22±·63	188	40—57	47·20±·17	140	40—56	47·44±·27	100	41—59	49·60±·30	9
10	Nasal Br.	237	31—60	47·15±·16	25	32—42	36·52±·33	23	38·98±·32	189	30—48	39·61±·14	140	33—45	37·81±·21	100	31—44	38·00±·20	10
11	Tot. Fac. Ht.	236	95—129	111·70±·30	25	90—124	106·60±·32	23	110·00±1·01	189	96—125	109·67±·28	140	94—125	109·49±·54	100	97—128	114·50±·50	11
12	Leng. Br. Ind.	236	62—82	71·82±·14	25	66—79	72·66±·46	23	72·89±·53	189	67—82	74·54±·13	140	68·4—87·85	74·26±·31	100	67·18—81·22	73·57±·18	12
13	Leng. Ht. Ind.	224	55—75	65·51±·16	25	56—75·5	67·68±·58	23	65·11±·49	187	65—83	72·17±·18	140	54·5—72·77	63·35±·37	100	45·31—75·68	60·84±·36	13
14	Nasal Ind.	223	76—131	100·74±·45	25	56—95	77·16±1·31	23	81·38±·95	189	64—104	84·30±·43	140	66·0—97·56	80·11±·65	100	57·41—100	77·13±·53	14
15	Tot. Fac. Ind.	235	70—97	80·14±·22	25	64—107	91·37±·80	23	85·26±·61	189	73—95	83·74±·22	140	73·28—98·35	85·35±·45	100	73·57—105·60	86·13±·40	15

a cemetery with two layers of burials, and the two layers show two distinct racial types (Sarkar, 1937). The lower-layer people appear to show some Australoid affinity similar to Mohenjodaro remains. Harappa has yielded many more skeletal remains than Mohenjodaro, but the main report has been published without any detailed description of the skeletal remains. In the short summary by Guha (Vats, 1940, p. 238), there is only a reference to two different racial types. During the winter of 1930-31 the present writer was responsible along with Mr. H. K. Basu for the excavation, preservation and the eventual removal of the skeletal remains from Harappa to the Indian Museum, Calcutta, and the list of skeletal remains published in the Harappa report (p. 242) shows them to have been 57 in number. Some more have been excavated by Mr. Basu (Wheeler, 1947) in the extension of the cemetery after the publication of the above report.

At Aditanallur in the Tinnevelly district of South India—an Iron Age site—nine skulls were found. Guha in an earlier note published as an appendix to Chapter XVI of *Prehistoric India* (Mitra, 1927) stated that 'the Aditanallur crania conform to the Veddah type' while in his recent paper (1951) he says that they belong to the Proto-Australoid type. Of the two crania studied by Zuckerman and Elliot Smith (1930), one shows unmistakable Australoid affinity. The detailed report of these skulls too is long awaited from Guha.

Outside India, the Badarian crania have been found by Stoesigger (1927) to be 'as closely allied to the Dravidians and Kolarians as to the Early Predynastic Egyptians and are almost as close to the Veddahs'. The Badarian culture belongs to about 6000 B. C., and since that time the skeletal remains found in association with the prehistoric civilization appear to be Australoid in nature ; nothing relating to the Negro or Negrito has so far been found.

Australians and Australoids

Let us now take up the actual comparison of the Australian physical features (Howells, 1947) with some of the Australoids in India. The selected data from the latter are given in Table I.

In selecting the comparative material the primary criterion

was the people having Veddid or alleged to have Veddid affinities. The next criterion was the completeness of the metric data. It is extremely difficult to find out suitable comparative data in this country and the few data utilized here for comparison are not wholly complete. Nothing is known of the maximum and minimum ranges of the Chenchu physical measurements and the horizontal circumference of the Kondh head. It was also intended to cover as much of the representative geographical area, particularly, to examine the northern position of the Male. Thus commencing with the Veddas of Ceylon (Osman Hill, 1941) we come to their nearest geographical neighbour, the Kannikars of Travancore (Chatterji and Kumar, 1952), then to the Chenchus of Hyderabad (Guha, 1935) and then to the Kondhs of Madhya Pradesh (Ray, 1948) and finally to the Male of the Rajmahal Hills (Sarkar, 1935-36). The primitive and the isolated nature of the people was also another criterion in selecting the tribes, and as such the Oraons were not included for comparison. The Oraons are a highly expanding tribe and in course of their sojourn from South India appear to have undergone many changes. The tradition of their common origin with the Male has been found by the present writer (1938, 1942-43) to be untenable.

On the same grounds, it is extremely unfortunate that the Paniyans of Wynad, Malabar, and the Kadars of Cochin Hills could not be thoroughly discussed owing to the lack of any comprehensive metric data. Mention has already been made of Guha's Kadar data (Sarkar, 1953) and Thurston's (1908) data on these two tribes are appended in Table II.

With their wavy hair, short stature, dolichocephalic head, platyrrhine nose and infantile characters they appear to be closely related to the other Veddids.

The Mundari-speaking peoples have not been taken into consideration here and it will be fitting with Bowles (1943) to treat them separately.

Guha (1951) in his recent paper has again raised the 'Proto-Australoid' question. He accepts Howells' main contention of the closest correspondence between the Veddas of Ceylon and the Australians and the likeness as 'unmistakable' and also

'the existence of a genetic relationship'. His only argument to call the Australoids as 'Proto-Australoid' is the 'comparative

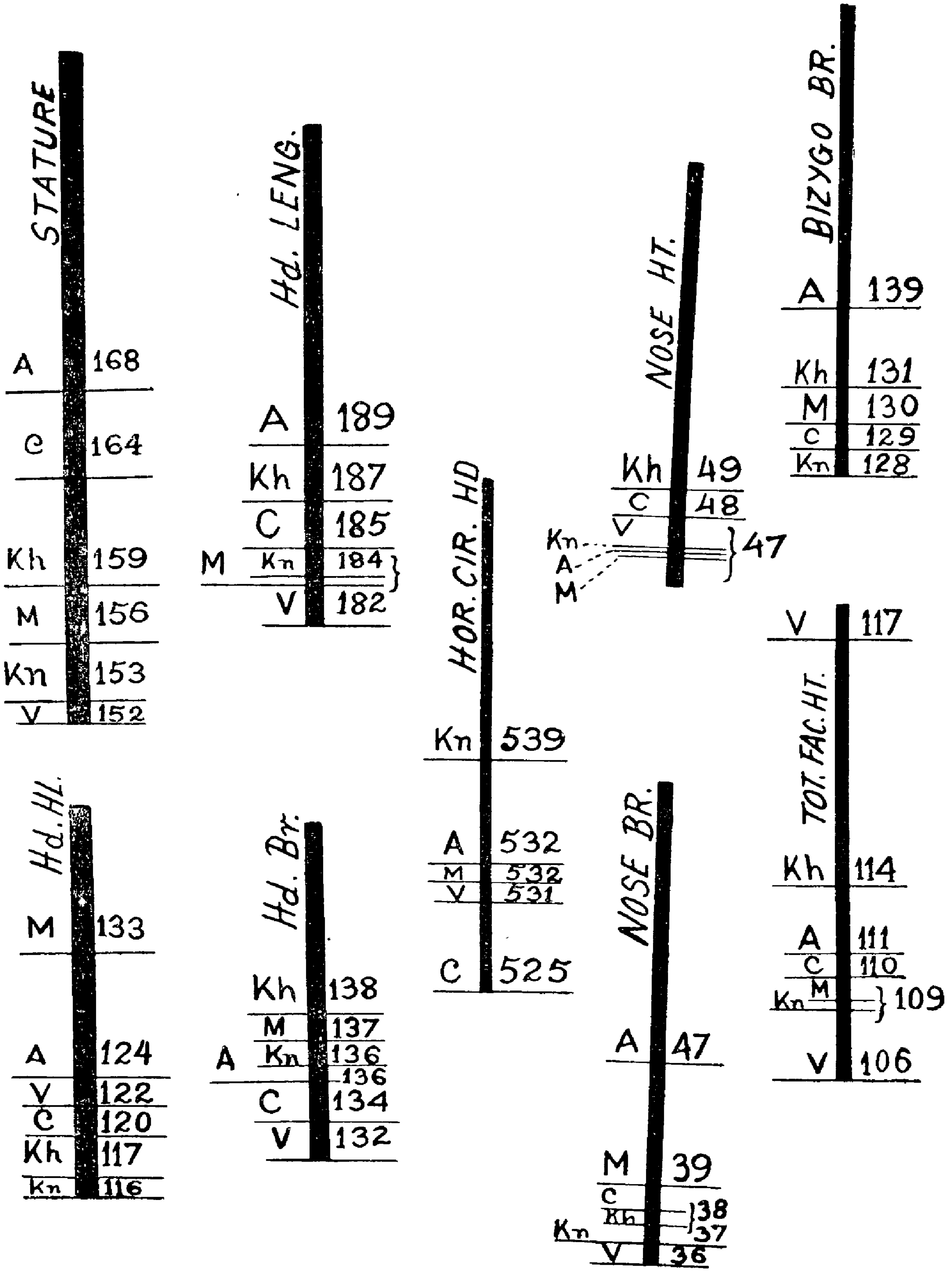

Fig. I

smallness' of the physical features of the Indian aborigines when compared with those of the Australian aborigines. Then he

says : 'there seems no justification for calling them "Veddoid" when we consider, as shown by Howells, that the resemblance of the Vedda is much greater with the Australians than with any of the Indian tribes'.

It appears to the present writer that Howells has probably been slightly misrepresented. The quotation gives an idea that Howells has undertaken a comparison of the Veddas and other Indian tribes. Howells was handicapped by the lack of data, as will be evident from his remarks on pages 61 and 64 of his paper, and the only available Chenchu data of Guha were assigned by him to have a strong Australian resemblance. He has emphasized of an Australoid element in the Indian aborigines in his paper more than once.

A detailed comparative study with this end in view has not so far been undertaken—not even by Sewell and Guha before they proposed their 'Proto-Australoid' hypothesis. It will be seen from Fig. 1, where certain characters extracted from Table I, have been arranged in the descending order of their means, that the Indian aborigines are not always characterized by 'comparative smallness' when compared with the Australians.

The Australians occupy the topmost position of the arbitrary scale in 4 out of 9 characters shown in Fig. 1. Further, the Australians do not show any significant statistical difference in respect of certain characters.

TABLE III

		Stature		Head Leng.		Head Br.		Cephalic Index		Nasal Ind.	
	No.	Range	Mean	Range	Mean	Range	Mean	Range	Mean	Range	Mean
Kadar	28	1486—1694	1577	172—194	184	125—138	134	69—80	72·9	72·9—108·6	89·8
Paniyan	25	1520—1716	1574	175—198	184	130—149	136	69·4—81·1	74·0	72·9—115·4	95·1

In Table III the differences in the means of the various characters of the tribes have been given along with a quotient derived by dividing the difference by its probable error. The size of the inter-tribal differences as evidenced by the probable error has been extracted from Table III and shown separately in Table IV.

The Australian and the Vedda show close resemblance in respect of head height, horizontal circumference of head,

TABLE III

DIFFERENCES OF MEANS OF THE VARIOUS TRIBES WITH VALUES IN TERMS OF P. E.

Sr. No.		1 Australian Vedda Diff.	1 x.p.e.	2 Australian Male Diff.	2 x.p.e.	3 Australian Chenchu Diff.	3 x.p.e.	4 Australian Kannikar Diff.	4 x.p.e.	5 Australian Kondh Diff.	5 x.p.e.	6 Vedda Male Diff.	6 x.p.e.	7 Vedda Chenchu Diff.	7 x.p.e.	8 Vedda Kondh Diff.	8 x.p.e.	9 Vedda Kannikar Diff.	9 x.p.e.	10 Chenchu Male Diff.	10 x.p'e.	11 Chenchu Kannikar Diff.	11 x.p.e.	12 Chenchu Kondh Diff.	12 x.p.e	13 Male Kondh Diff.	13 x.p.e.	14 Male Kannikar Diff.	14 x.p.e.	15 Kondh Kannikar Diff.	15 x.p.e.	Sr. No.
1	Stature	15·76	18·11	11·66	31·51	3·35	3·53	15·13	30·26	8·34	18·53	4·10	4·71	12·41	10·01	7·42	8·15	0·63	0·68	8·31	8·74	11·78	20·31	4·99	5·04	3·82	7·38	8·47	6·94	6·79	11·91	1
2	Hd. Leng	7·70	7·94	5·72	15·05	4·76	5·67	5·34	9·21	2·03	6·77	1·98	2·00	2·94	2·41	5·67	5·79	2·36	2·54	0·96	1·14	0·58	0·62	2·73	3·21	3·69	9·25	0·38	0·66	3·31	5·52	2
3	Hd. Bread.	3·78	4·85	0·69	2·30	1·71	2·19	0·41	0·89	1·66	4·37	4·47	5·96	2·07	2·01	5·44	6·97	4·19	5·05	2·40	3·12	2·12	2·52	3·37	4·21	0·97	2·69	0·28	0·62	1·25	2·50	3
4	Hd. Height.	1·37	1·18	9·23	21·47	3·81	4·28	7·61	10·87	7·09	10·74	10·60	9·06	2·44	1·73	5·72	4·50	6·24	4·84	13·04	14·33	3·80	3·58	3·28	3·15	16·32	24·0	16·84	23·39	0·52	0·59	4
5	Hor. Cir. Hd.	0·66	0·10	0·41	0·28	7·11	3·57	7·43	4·86	×	×	0·25	0·04	6·45	0·92	×	×	8·09	1·17	6·70	2·96	14·54	6·32	×	×	×	×	7·84	4·22	×	×	5
6	Min. Fr. Dia.	1·70	2·13	4·28	15·29	3·99	6·76	1·48	0·37	4·12	11·14	2·58	3·27	2·29	2·41	2·42	2·92	0·22	0·26	0·29	0·50	2·51	4·11	0·13	0·21	0·16	0·47	2·80	7·57	2·64	6·00	6
7	Bizygo. Br.	22·41	24·97	8·87	27·72	10·85	15·50	11·49	28·02	8·05	17·50	13·54	14·56	11·56	10·32	14·36	14·65	10·92	11·38	1·98	2·83	0·64	0·86	2·80	0·36	0·82	1·78	2·62	6·55	3·44	6·49	7
8	Bigonial Br.	10·73	10·62	7·57	19·92	11·07	8·45	7·57	8·51	7·36	15·66	3·16	3·10	0·34	2·10	3·37	3·18	3·16	2·43	3·50	2·65	8·50	2·26	3·71	2·75	0·21	0·43	0	0·90	0·21	0·22	8
9	Nasal Ht.	0·14	0·18	0·18	0·72	0·84	1·27	·06	0·18	2·22	6·17	0·32	0·41	0·70	0·71	2·08	2·54	0·08	0·10	1·02	1·57	0·78	1·15	1·38	1·97	2·40	7·06	0·24	0·75	2·16	5·40	9
10	Nasal Br.	10·63	28·73	7·54	35·90	8·17	22·69	9·34	35·92	9·15	35·19	3·09	8·35	2·46	5·35	1·48	3·89	1·29	3·31	0·63	1·80	1·17	3·08	0·98	2·58	1·61	6·71	1·80	7·20	0·19	0·66	10
11	Tot. Fac. Ht.	5·10	11·59	2·03	4·95	1·70	1·63	2·21	3·56	2·80	4·83	3·07	7·14	3·40	3·21	7·90	13·17	2·89	4·59	0·33	0·31	0·51	0·44	4·50	0·40	4·83	8·47	0·18	0·30	5·01	6·77	11
12	Leng. Br. Ind.	0·84	1·75	2·72	14·32	1·07	1·95	2·44	7·18	1·75	7·61	1·88	3·92	0·23	3·29	0·91	1·86	1·60	2·91	1·65	3·06	1·37	2·25	0·68	1·21	0·97	4·41	0·28	0·82	0·69	1·92	12
13	Leng. Ht. Ind.	2·17	3·62	6·66	27·75	0·40	0·77	2·16	5·40	4·67	11·97	4·49	7·36	2·57	3·38	6·84	10·06	4·33	6·28	7·06	13·58	1·76	2·89	4·27	7·12	11·33	28·33	8·82	21·51	2·51	4·92	13
14	Nasal Ind.	23·58	16·96	16·44	26·52	19·36	18·44	20·63	26·11	23·61	33·73	7·14	5·17	4·22	2·61	0·03	0·02	2·95	2·02	2·92	2·81	1·27	1·10	4·25	3·90	7·17	10·54	4·19	5·37	2·98	3·55	14
15	Tot. Fac. Ind.	11·23	13·53	3·60	11·61	5·12	8·09	5·21	22·22	5·99	13·02	7·63	9·19	6·11	6·05	5·24	5·89	6·02	6·54	1·52	2·34	0·09	0·12	0·87	1·19	2·39	5·31	1·61	3·22	0·78	1·30	15

minimum frontal diameter, nasal height and cephalic index while the Chenchu resemble the Australian in head breadth, nasal height, total facial height, cephalic index and length-height index. Thus each of them show a 5 point resemblance with the Australian.

TABLE IV

SIZE OF INTER-TRIBAL DIFFERENCES IN TERMS OF PROBABLE ERROR

		0—1	1—2	2—3	3—3	4—x
1	Australian—Vedda	2	2	1	1	9
2	„ —Male	2	0	1	0	12
3	„ —Chenchu	1	3	1	2	8
4	„ —Kannikar	3	0	0	1	11
5	„ —Kondh	0	0	0	0	14
6	Vedda—Male	2	0	1	3	9
7	„ —Chenchu	2	1	5	3	4
8	„ —Kannikar	3	1	4	1	6
9	„ —Kondh	1	1	2	2	8
10	Chenchu—Male	2	3	5	2	3
11	„ —Kannikar	4	2	4	2	3
12	„ —Kondh	3	3	2	3	3
13	Male—Kondh	2	1	1	0	10
14	„ —Kannikar	6	0	0	1	8
15	Kannikar—Kondh	[illegible]	2	1	1	7

The Vedda, on the other hand, shows an 8 point resemblance with the Chenchu and the Kannikar each. Both agree with the Vedda in respect of head length, horizontal circumference of head, minimum frontal diameter, bigonial breadth, nasal height and nasal index. The other two characters besides the above 6 common characters, are head breadth and head height in the Chenchu, and stature and cephalic index for the Kannikars. The Kondh shows a 5 point resemblance with the Vedda.

The Chenchu occupying the central geographical position reveals an interesting feature. They show a 10 point resemblance

each with the Male and the Kannikar while there is a 8 point resemblance with the Kondhs. Both the Male and the Kannikar agree in common with the Chenchu in respect of head length, bizygomatic breadth, bigonial breadth, nasal height, nasal index, total facial height and total facial index. The other three characters, not found in common, are horizontal circumference of head, minimum frontal diameter and nasal breadth in the Male while in the Kannikar they are head breadth, length-breadth index and length-height index. The Chenchu and the Kondh resemble in minimum frontal diameter, bizygomatic breadth, bigonial breadth, nasal height, nasal breadth, total facial height, length-breadth index and total facial index. Thus the Male, the Chenchu and the Kannikar agree with one another in the majority of characters and it would not be out of place if we regard them as the closest congeners.

Both the Chenchu and the Kannikar resemble the Vedda in 8 characters, as mentioned above, and we can, by implication, say that the Vedda, the Chenchu, the Kannikar and the Male were at one time close congeners. Thus Guha's opinion quoted above appears to be unwarranted ; in fact the resemblance of the Indian tribes with the Vedda is greater than that of the latter with the Australians and the nomenclature Veddic is fully justified in the racial affiliation of the tribes discussed in the present study and also to those allied to them here or abroad.

The present writer in 1938 referred to the Male as the autochthonous inhabitants of the Rajmahal Hills. The Paniyans, whose blood group picture have been so widely and rightly compared with the Australian blood groups, have not so far been subjected to serious study, and to the present writer they appear to be the truest representative of the Veddas in South India. These Veddids are the autochthones of the country ; they are the products of the soil. There is indeed a long gap from the Sivapithcus to the Australoids. But where is a concerted attempt to search for early man ? Excavated materials like the Indus Valley and Aditanallur human remains lie unstudied for years together in the museum shelves. In the meanwhile let us wait for De Terra (1949).

Summary.

1. The history of the term 'Proto-Australoid' has been discussed.

2. The distribution of the Veddids in India and their extent outside India has been traced.

3. The evolution of the Australoids has occurred first while the Negrito appeared as a mutation from the Australoids. The woolly hair is a mutation from the wavy hair. The Australoids are stagnating at a low stage of development while the Negro or Negrito is a highly specialized form.

4. The Australoid skeletal remains date as early as Badarian times and during the prehistoric times in India the Australoid types only predominate.

5. A statistical treatment of the anthropometric data from the Australians, the Veddas and a few other Indian aborigines has been made. The Mundari-speaking peoples have been left out of the present study.

6. The statistical treatment reveals an 8 point resemblance between the Vedda, the Chenchu and the Kannikar and a 10 point resemblance between the Chenchu, the Male, the Kannikar and the Kondh. This relationship is indicative of a close racial affinity with the Vedda and the nomenclature Veddid for such people is fully justified.

BIBLIOGRAPHY

1. Bowles, G. T. 1943. Linguistic and Racial Aspects of the Munda Problem, *Pap. Peabody Mus. Am. Arch. Ethn.*, XX.
2. Chakladar, H. C. 1921. Systematic Anthropology of Asia, *Anth. Pap. Cal. Univ. No. 6.* (Translation of Giuffrida-Ruggeri, *Arch. Antrop. Etnol.*, *Firenze*, XLVII, 1917).
3. Chanda, R. P. 1916. The Indo-Aryan Races, Rajshahi.
4. Chatterji, B. K. & G. D. Kumar, 1952. Somatic characters and Racial Affinities of the Kannikars of Travancore State, *Jr. Asiat. Soc.* XVIII, 55.
5. Coon, C. S. 1948. Southern Arabia : A problem for the future, *Pap. Peabody Mus. Am. Arch. Ethn.* XX.
6. de Zwaan, J. P. K. 1914. Die Insel Nias bei Sumatrà. Anthropologische Untersuchungen uber die Niasser, The Hague,
7. ———1934. The Vedda element in the population of the East Indian Archipelago, *C. R. Cong. Int. Anth. Ethn.*, London.

8. Dixon, R. B. 1928. The Racial History of Mankind, New York.
9. Eickstedt, E. v. F. 1939. Introduction, Vol. II, The Travancore Tribes and Castes, Trivanrum.
10. Fischer, Eugen, 1931. Die gegenseitige Stellung der Menschenrassen auf Grund der Mendelnden Merkmale, *Com. Ital. Stud. Prob. d. Poplaz.*, Rome.
11. Guha, B S. 1935. The Racial Affinities of the peoples of India, Census of India, Vol. I, pt. III. Delhi.
12. ————1951. The Indian Aborigines and their Administration, *Jr. Asiatic Soc.* XVII, 19.
13. Holbe, M. T. V. 1923, Somatique extreme-orientale, *Rev Anth.*, 33, 217.
14. Hooton, E. A 1930. The Indians of Pecos Pueblo, New Haven, Conn.
15. Howells, W. W. 1937. Anthropometry of the Natives of Arnhem Land and the Australian Race Problem, *Pap. Peabody Mus. Am. Arch. Ethn.* XX.
16 ————1940. Physical Determination of Race in E. W. Count's This is Race, New York, 1950.
17. Hutton, J. H. 1933. Census of India, Vol. 1, Report, Delhi.
18. Iyer, L. A. K. 1938., 1939. Travancore Castes and Tribes, Trivandrum, Vols. I & II.
19. Keane, A. H. 1920. Man Past and Present, Cambridge.
20. Keith Arthur. 1930. New Discoveries relating to the antiquity of Man, New York.
21. Loeb, E. M. 1935. Sumatra, Its History and People, Vienna.
22. Mitra, P. 1927. Prehistoric India, Calcutta.
23. Molengraaff, G. A. F. 1921. Modern Deep-sea Research in the Easy Indian Archipelago, *Geog. Jr.*
24. Osman Hill, W. C. 1941. The Physical Anthropology of the Existing Veddas of Ceylon, pt. I, *Ceylon. Jr. Sc.* III.
25. Ray, G. S. 1948. A study of the physical characters of Kondhs, *East. Anth.*, II, 138.
26. Sarasin, F. 1906. Versuch einer Anthropologie der Insel Celebes, II, Weisbaden,
27. Sarkar, S. S. 1935-36. The Racial Affinities of the Inhabitants of the Rajmahal Hills, *Trans. Bose Res. Inst.*, XI
28. ————1937. The disposal of the dead at Harappa, *Sci. Cul.* 2, 652.
29. ————1938. The Maler of the Rajmahal Hills, Calcutta
30. ————1942-43. Blood Grouping Investigations in India with special reference to the Oraons, *Trans. Bose Res. Inst*, XV.
31. ————1953. The Negrito Racial Strain in India, *Man in India*, 33
32. Sarkar, S. S., Das, B., Agarwal, K. 1953. The Anglo-Indians of Calcutta, *Man in India*, 33.
33. Seligman, C. G. & B. Z. 1911. The Veddas, London.
34. ————Seltzer, C. C. 1943 Review of E. W. Count's three papers on Australo-Melanesian Element in primitive Amerinds, *Am. Jr. Phys. Anth.* 1 (N. S.)

18 SEP 1958

35. Sewell, R. B. S. & Guha. B. S. 1931. Mohenjodaro. II by John Marshall, Ch. 30, London.

36. ———1928. Excavations in Baluchistan, *Mem. Arch. Surv. Ind.*, No. 35. App. V. Simla.

37. Stoesigger. B. N. 1917. A study of the Badarian Crania recently excavated by the British School of Archaeology in Egypt, *Biometrika*, XIX, as.

38. Thurston, E. 1908. Tribes and Castes of Southern India, Vol. 1, Madr

39. Tozzer, A. M. & Coon, C. S. 1943. Preface to Dixon Memorial Volume, *Pap. Peabody Mus. Am. Arch. Ethn.* XX.

40. Vats, M. S. 1940. Excavations at Harappa, Vol. I., Delhi.

41. Wheeler, R. E. M. 1947. Harappa 1946 : the Defences and Cemetery R. 37, *Ancient India*. 3.

42. Zuckerman, S 1930. The Aditanallur Skulls, Bull. Madras Govt. Mus. III, Pt. I, (New Series).

ERRATA

p. 198 Para 2, Line 10, read 'northern' for 'nothern'.

p. 205 Explanation to Fig. 1.

Means arranged in descending order : A—Australian ; C—Chenchu ; Kh—Kondh : M—Male ; Kn—Kannikar ; V—Vedda.

p. 206 Read Table II for Table III.

p. 207 Table IV Range of P. E. '3—4' for '3—3'.

,, Col. 15, Read '3' under Range 0—1.

p. 208 Para 2, Line 7, Read 'Veddid' for 'Veddic'.

p. 209 Insert Bibliography No. 5a.

De Terra, H. 1949. Geology and climate as factors of Human Evolution in Asia.
Viking Fund Symp. on Early Man in the Far East. *Stud. in Phs. Anth. 1.*

AN ORAON DEATH CEREMONY

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THE case-history of an Oraon death, its connected ceremonies and rites have been described in this article. The rites and ceremonies which were performed in this particular case can be divided into seven main parts. Broadly speaking they are : (1) Arrangements and method of burial, together with the connected rites, (2) Cremation of an earthen image, (3) *Uturkhila* ceremony, (4) *Ekh-mangkho* or calling back the soul, (5) *Hosal paichana* or collection of bones, (6) *Harbora* or disposal of the bones, (7) Purification of the hut.

Excepting what were performed with respect to the first part, all other rites and ceremonies were either observed directly in the field or were gathered directly from the participants (specially when two rites were performed simultaneously at two different places). The information regarding the first part was collected with the help of the genealogical method as far as possible.

This particular case deals with the death of an Oraon married woman named Budhni who was the wife of Jhirgia, an Oraon villager of Tukurtoli, a part of Chetar village under Gumla Police Station in the district of Ranchi (Bihar State). The annexed table will give brief information about the persons referred to in this article.

The Disease, its treatment and result

On a particular night in the month of *Bhado* last year (July-August, 1952) Budhni was attacked with *disha* (cholera). Early in the morning Birsai's mother an elderly woman of the village who knows the use of some medicinal herbs, gave her some juice of the leaves of a tree. But the patient did not

TABLE

INFORMATIONS ABOUT THE PERSONS MENTIONED IN THIS ARTICLE

Sr No.	Name	Age in years	Sex	Clan	Village	Relationship etc.
1	Jhirgia	29	Male	Gidhi	Tukurtoli	A villager
2	Budhni	25	Female	Lakra	,,	Dead wife of (1)
3	Bijla	10	Male	Gidhi	,,	Son of (1)
4	Atwari	8	Female	,,	,,	Daughter of (1)
5	Ghasi	52	Male	Kujur	,,	A villager, not related to (1)
6	Paro	45	Female	Kindwar	,,	Wife of (5)
7	Sukro	45	Male	Kujur	,,	Younger brother of (5)
8	Lodo	60	Male	Kujur	,,	*Mahato* (headman) of the village, not related to (1)
9	Mongra(I)	30	Male	Kujur	,,	Elder brother's son of (8)
10	Mongra(II)	62	Male	Gidhi	,,	Father's younger brother of (1)
11	Chomra	28	Male	,,	,,	Father's father's younger brother's son's son of (1)
12	Kaila	42	Male	Gidhi	,,	Father's father's younger brother's son of (1)
13	Birsai	50	Male	Gidhi	,,	,,
14	Bashi	35	Female	Tirki	,,	Wife of (12)
15	Chari	55	Female	Tigga	,,	Wife of (8)
16	Suko	55	Female	Bara	,,	Mother of (9)
17	Pillai	35	Male	?	Tangortoli	Mother's elder brother's son of (1)
18	Ainsho	45	Male	Lakra	Nauagar	Elder brother of (2)
19	Towa	40	Female	?	,,	Wife of (18)
20	Singi	45	Female	?	,,	Father's younger sister of (2)
21	Cherwa	30	Male	?	Tangortoli	A friend of (1)

improve. Then a physician from the Goverment hospital at Gumla, a subdivisional town about a mile from Tukurtoli was called. But his treatment also became unfruitful. Next day, early in the morning, Budhni breathed her last. According to the Oraons, death due to cholera is not a case of abnormal death.

At the House of the Dead

At the time of death Budhni was lying on a mat. Jhirgia, Atwari, Bashi, and Bijla were present by her side. While Kaila and Mongra (II) were nearby Jhirgia noticing no sign of movement in Budhni's body called her again and again but without effect. Then they became sure that Budhni was dead. As soon as Jhirgia declared that his wife was dead, Bijla, Bashi, Atwari began to cry loudly. Kaila and Mongra (II) also mourned for the deceased. Then Kaila who belongs to Jhirgia's lineage carried the news to their clansmen and other villagers of Tukurtoli. Many elderly persons both male and female assembled at the courtyard of Jhirgia's hut. Youngsters were not allowed to go there by their parents as they knew that cholera was a contagious disease. Everybody present mourned for the dead. Some of those present cried ceremonially and described the merits of Budhni.

In the early morning the news was sent to Budhni's father's family at Nauagar about 2½ miles from Tukurtoli and accordingly Budhni's elder brother, elder brother's wife, younger sister, and younger brother came. Then the dead body was bathed with water by Bashi, Budhni's elder brother's wife and younger sister. Then the whole body was anointed with mustard oil. The head was anointed with a paste of mustard oil and turmeric powder. And vermilion was put on the forehead. These were done by Bashi, Paro and Budhni's elder brother's wife. Then boiled rice mixed with milk was placed on her mouth by the same persons. After a while these were washed away.

In the meantime a few villagers constructed a *sangat* or bier made of bamboo. It was prepared from two long bamboo poles and a few cross-bars of split bamboo, tied to the poles.

When the bier was ready the dead body was brought outside

the hut and laid in the courtyard on a mat. The body was covered with a new piece of white cloth. Then at the time of *lande lohari manje** i.e., late morning, the dead body along with the mat was transferred on the bier by Kaila and Budhni's elder brother and was carried to the burial ground by Kaila, Mongra (I) and the two brothers of Budhni. The body was taken out from the domicile through the main entrance. The two persons who took hold of the bier towards the head of the dead body came out first. At that time the mourners began to cry aloud. The dead was followed by many elderly persons of the village, both male and female. We gathered from them that newly married couples and pregnant women are not allowed to accompany the procession. All the way Jhirgia fanned the dead body by means of the one end of his *dhoti* (cloth).

One woman (name not remembered by the informant) scattered paddy and cotton now and then on the way. Thus they reached the burial ground.

At the Burial Ground

In the meantime, before the funeral procession reached the burial ground, Chomra and Sukro came there and dug a grave in the north-south direction. When the deady body was brought to the burial ground the female members of the party placed boiled rice one by one on the mouth of the corpse and washed the mouth clean every time. After that the corpse was lowered into the grave by Chomra, Kaila, Mongra (I) and some other persons with the help of ropes. The head of the dead body was directed towards the south with the face placed upwards. Then some paddy grains were kept on one side (no preference to a particular side according to them) of the dead body near the head. At first some clods of earth were thrown into the grave by Jhirgia. Then others began to fill in the grave. When the grave was nearly filled up a *dubha* or cup of bell-metal was placed towards the southern end of the grave. After that it was filled up with earth and over this paddy grains were broad-cast. When the burial was thus over, they returned to the village until they stood outside in front of Jhirgia's hut.

* The phrase actually means 'the time when lazy people take their breakfast'.

Returning from the Burial Ground

When the persons who went to the burial ground came back a fire was lighted in front of the entrance of Jhirgia's hut and by its side mustard oil and turmeric powder were kept separately in two leaf cups by Bashi. Then every one took some turmeric powder and oil, smeared over the palms, and after touching the fire, the hands were rubbed together and against the feet. After doing this, the villagers returned to their respective huts. For ten days from the day on which Budhni died, Jhirgia and his family members did not take any meat or fish. During this period Jhirgia did not attend any religious ceremony.

The informants said that these taboos are to be observed upto the day of *gami* or the attendant ceremonies after a death. But if the *gami* takes place after a long time (as was in this case) then the taboos are to be observed only for ten days. There is no definite rule that *gami* should take place on such and such a day after death. It depends upon the economic condition of the family. Generally it is performed after harvesting.

The *gami* in this particular case was performed about four months after the actual date of death. The different rites and ceremonies which were performed in this connection have been described in the following pages in their proper order. These were all observed personally in the field.

Preparation for the Ceremonies

After harvesting and storing of paddy was over, Jhirgia decided to perform the *gami* of Budhni on Wednesday the 7th January, 1953, as that was convenient for him. On 1st January, 1953 Jhirgia went to Nauagar to invite the members of Budhni's father's family to come to his house on the day fixed for the ceremonies. In this connection he also invited the members of his mother's father's family living at Tangortoli, which is within a mile from Tukurtoli and all the villagers of his own village including his agnates.

On 6th January Jhirgia purchased the following articles which are required for the ceremonies from the market at Gumla. The articles are :

	Name of the articles.	*Quantity.*	*Price.* Rs. as. p.
1.	Vermilion	—	0 1 0
2.	Betel nuts	4 in number	0 1 0
3.	Cowries	3 in number	0 2 0
4.	A piece of cotton cloth	1 yard in length	0 10 0
5.	Cotton thread	—	0 2 0
6.	Molasses	—	0 6 0
7.	Turmeric	—	0 6 0
8.	One he-goat	—	8 0 0

Before the day fixed for the ceremonies Jhirgia also collected some fuel from the nearby jungles for use during the ceremonies.

In the morning of 7th January (the day fixed for the ceremonies) Bashi together with Atwari and Bijla cleared the courtyard of Jhirgia's hut and plastered it with a mixture of cowdung, mud and water. They also stored water in earthen jars, the water was brought from a nearby well.

In the meantime some of the invited men began to assemble in the courtyard. They were Ghasi, Mongra (I), Kaila, Chomra, Pillai. At about 9-45 a.m. Jhirgia accompanied by the above persons started towards the burial ground. They took with them one betel nut, a small amount of vermilion, a piece of cotton cloth which is called *kafiluga*, a cowrie, cotton thread. All these had been purchased by Jhirgia on the previous day. Beside these articles they also took about $\frac{1}{8}$th seer of sun dried rice wahsed in water and mixed with molasses, one axe, one hoe, a tin bucket two bundles of wood, one bundle of straw and a match box. On their way they collected three long branches of a mango tree with leaves in them. Chomra cut the branches by means of the axe which was taken with them.

At the Burial Ground

On reaching the burial ground Chomra dug out the portion of the grave of Budhni beneath which the head of the dead body was lying by means of the hoe and took out the *dubha* which was put there at the time of burial. It was known from them that this cup should be given away to a poor person and not to be

used again by the family members of the dead person. But in this case as Jhirgia himself is not a well-to-do person, he will either exchange it with that of some other family or sell it ; but he will not use it again. This procedure is generally adoptod when one is too poor to give away a valuable metal cup.

In the meanwhile Ghasi and Mongra (I) brought some clay and water respectively from the nearby low land. Then these, with some quantity of earth dug up by Chomra from the grave were mixed thoroughly by Pillai who made a female figurine from this paste. This figurine was about 8″ inches in length. Then the betel-nut was inserted within the head, the copper coin within the neck and the cowrie within the breast of the figurine. A mark of vermillion was put on the forehead of the figurine. After this a piece of cloth about 12″ long and 3″ broad was torn away from that ***kafiluga*** and the figurine was dressed with it. According to them, this figurine is a representation of the dead body of Budhni.

While Pillai was doing all these, others present made a pyre (about 1′6″ by 1′6″ in size and about 1′ high) over the grave of Budhni. It was made by placing first some leaf less branehes of mango tree in a row in the north-south direction then over them pieces of wood in the east-west direction. Then over them again a row of wood was placed in the north-south direction. In this manner it was raised about a foot in height. After that three branches of mango tree each about 3 feet in height and bearing leaves were stuck vertically along the east side of the pyre, two of them were posted at the two corners and one in the middle. Similarly three more branches were posted along the west side of the pyre. After this through these branches cotton thread was put round the pyre. Then six small pieces of cloth, each about 3″×4″ in size, were torn away from the ***kafiluga*** and were attached to those six vertical branches of mango tree. As reported by them these represented flags.

When all this was over, Jhirgia put a lump of cowdung over the portion of the grave from which the metal cup had been taken out. Then he poured water three times over the lump of cowdung by holding his palms together. While Jhirgia was pouring water Ghasi caught the same water before it reached the

the ground on a small branch of mango tree with leaves. The water then reached the spot where the lump of cowdung lay. Thus Ghasi participated in offering water along with Jhirgia. Ghasi then began to sprinkle some of the water caught in the mango leaves upon the pyre and uttered a prayer which when translated means, "Let no person of Jhirgia's family suffer from any disease, let no person die in his family, let all of them live happily". After doing this he placed that branch on the south eastern corner of the pyre. This ceremony known as *utdhar* is a kind of purificatory ceremony.

Pillai then placed the figurine on his palms and went round the pyre three times in an anti clockwise direction, after which he placed the figurine on the pyre, the head pointing towards the south. Jhirgia then put little quantities of rice mixed with molasses three times on the mouth of the figurine. Then Chomra washed the mouth of the figurine with water. Ghasi and Pillai repeated the operation one after another. After that, the bundle of straw which had been brought was divided into three. Jhirgia took one of the bundles in his hand and kindling it from the fire which was already lighted in the meantime by Kaila, moved round the pyre three times in an anti-clockwise direction starting from the west side of it. Each time, when he came to the east of the pyre, he touched the mouth of the figurine by means of the lighted bundle and said '*inna ningan aig mukh chialdan*', 'I am performing your *agmukhi* (putting fire on the mouth) ceremony." Then the pyre was set on fire by all present. Mongra (I) as a representative of the villagers put a piece of wood on the pyre.

When the pyre began to blaze all of them went to the low-lying fields near by in order to wash their hands and feet. After washing they returned with the axe, the hoe and the tin bucket to the front of Jhirgia's hut. The remaining piece of cloth, the *dubha*, vermilion and thread were left there in a bush.

Returning from the Burial Ground

When they returned from the burial ground it was about 11-30 a.m. As the barber who was informed earlier did not turn up in time, Sukro, an Oraon villager, shaved the hair, beard and

moustache of Jhirgia. At the same time, Ghasi and Chomra shaved only the beard and moustache of Kaila and Pillai respectively. These were done outside the domicile. According to them, it is customary that the man who performs the rites should shave his hair beside beard and moustache and all other persons who attend the ceremony should shave their beards and moustaches only. But the general rule is that at least three persons should shave their beards and moustaches and one of them should be a family member of the deceased person who will also shave his hair.

In the meantime Bashi, wife of Kaila, brought some mustard oil in a leaf cup and a samll amount of powdered turmeric on a leaf and kept them outside the entrance to Jhirgia's hut.

When the shaving was over, all of those who had been to the burial ground smeared their hands, feet and faces with oil and turmeric powder after which they walked into the courtyard of Jhirgia's hut and taking their seats on a mat began to gossip. In the meanwhile Chomra and Mongra (I) began to get ready *haria* or rice-beer.

As the time was passing on women from different Oraon families of Tukurtoli came with one or two *pailas* (*paila* is a measure weighing about $\frac{3}{4}$th of a seer) of paddy carrying on their respective winnowing fans and put them into a basket which was kept in the courtyard and in which Jhirgia had kept about 15 *pailas* of paddy. Excepting two families who had a quarrel with Jhirgia all other families of Tukurtoli contributed paddy. The total amount of paddy collected in this manner was about $27\frac{1}{2}$ *pailas*. This amount was purchased by Bashi at the cost of Rs. 5/-. According to the wish of the persons present on the occasion that amount was kept with Mongra (I) who was requested to spend it for the feast to be arranged on the following day. In the meanwhile rice-beer was ready and everybody was served with the drink in leaf-cups.

Uturkhila

Then began the *Uturkhila* ceremony. Ghasi performed the rites. We were told that anybody who knows fully the rites and *mantras* or incantations of the ceremony can perform it, but he

must not belong to the clan of the deceased. He is however not paid anything.

First of all Mongra (I) made a small oven in the courtyard by means of three large lumps of earth. Then the following things were kept ready by the side of the oven on two different winnowing fans for use in different rites and ceremonies. These were arranged by Bashi and Kaila.

On the first winning fan were the following :

1. A hen's egg.
2. One small earthen pot.
3. Three twigs of the *sakhua* tree (Shorea robusta).
4. One sickle or *tantar*.
5. One ploughshare or *sangi*.
6. One knife or *kanto*.
7. One small branch of a tree with two petioles attached on its side opposite to each other. This branch was kept instead of *bhelwa* (Semicarpus anacardium) branch as the latter was not available.
8. One small bundle of straw.
9. A little amount of vermilion.
10. About ¼ *paila* of sun-dried rice.
11. A small quantity of soil taken from the family hearth.
12. A small quantity of ash.
13. One *ranu* cake. It is made by mixing powdered rice with the root of a particular tree. It is used as a starter for fermenting rice-beer.

The last five articles were kept separately on *sakhua* leaves.

On the second winnowing fan were the following :

1. About ½ *paila* of paddy.
2. An earthen pot about a foot in height.
3. About 2 *pailas* of paddy in a basket.
4. A metal cup containing mustard oil.
5. A few dried stems of *dimbo* tree (not identified) with the petioles of flowers.
6. A small branch of *pakori* tree (Ficus religiosa) with leaves.

Kaila than made three bags with *pakori* leaves by sewing them with straw. Each one was made by placing the stems of two leaves one above the other and sewing the sides of the leaves by means of pieces of straw. And Paro, wife of Ghasi, powdered some quantity of rice and *urid* pulse (Phaseolus roxburghii) separately and handed it over to Kaila. He then made a paste of powdered rice by mixing some water with it. Out of that paste he made four circular pieces of bread (diameter about 3″) and four *laddus* (more or less cylindrical in shape with rounded edges, length 2½″, diameter 1″). The petioles of *dakori* leaves were inserted right through the *laddus*. He also prepared four circular pieces of bread from the powdered *urid* pulse. After this Ghasi lighted the oven and placed the bigger earthen pot upon it. In this he prepared *khai* by frying paddy which was kept on the winnowing fan which held the egg, vermilion etc. He then fried those breads and *laddus* in mustard oil. Kaila then took out the petioles from the *laddus* leaving holes from one end to the other. After that the *laddus* were strung on a thread with the stems of *dimbo* tree in between them; this in turn was tied round the neck of the smaller earthen pot which was painted both inside and out with powdered rice mixed in water and with marks of vermilion on two opposite sides (three on each side). And a bread of rice-powder was put over the mouth of the earthen pot. This was done by Kaila.

When this was over Ghasi dug a circular pit in the courtyard (diameter about 5″ and depth 6″) on the eastern side of the oven. Around the pit concentric circles (diameters about 8″) were drawn side by side, the first one with ash, the second one with ordinary soil and the third with powdered *ranu*. Again, similar concentric circles were drawn midway between the pit and the first series of circles. Then eight cross-lines (each one in turn consisting of three lines drawn side by side with ash, ordinary soil, and powdered *ranu*) were drawn at equal distances from the border of the pit upto the outer circles.

He then made a small stick about 4 inches in length from the branch of the tree, which was used instead of the branch

of *bhelwa* tree, having two petioles attached to it opposite one another. The ends of the petioles and the branch were tied by means of fibers taken from a branch. After that he placed the egg outside that circular design opposite the oven. Ghasi then took one handful of rice in the right hand and the small stick in the other and prayed to God not to take offence for any fault in performing the rites. When the prayer was over he put the rice grains by the side of the egg and the stick touching the egg. After that the winnowing fan containing rice grains was put in front of him and while touching the rice he uttered some words. He said, 'Oh Budhni ! during this period you were outside this domicile. Today we are performing this ceremony to call you back to the domicile and finally to the *kundi*' (to be explained later). In the meantime Kaila put some fried paddy in those leaf bags and kept them on the winnowing fan. Then he brought a small pot of rice-beer to Ghasi, who poured the beer into a leaf-cup and kept it by the side of the pit. After that he handed over the pieces of bread made of *urid* pulse to his wife and placed the egg and the stick on the winnowing fan. We were told that these pieces of bread would be served to old women. No male person is allowed to eat them.

Jhirgia then brought the he-goat which had been purchased on the previous day and stood with a handful of rice, while he kept the goat on his left side. Ghasi also with a handful of rice stood on the left side of the goat. First Ghasi uttered some *mantras* which were repeated by Jhirgia. Then both of them threw the rice grains into the pit. This was for some sort of purification.

Again both Jhirgia and Ghasi (Ghasi seated) took rice grains in their hands, Ghasi uttered some *mantras* and threw the grains over the head of the goat while Jhirgia threw the grains into the pit. This kind of operation was repeated three times. According to Mongra (I) the rice grains were thrown in the name of the deceased person, and after the rite was over the goat was considered to represent Budhni, the deceased woman. After that Jhirgia made the goat kneel down

by bending its fore-legs. Ghasi put a mark of vermilion on its forehead.

When this operation was over, Jhirgia held a handful of rice in front of the goat for it to eat. But the goat did not take anything. He then poured rice-beer on the head of the goat from a leaf-cup and a small quantity which remained in the cup was poured into the pit. After this he put a one anna coin into the same earthen pot. These rites of feeding the goat (or according to them, Budhni) were repeated by everybody present there both male and female ; and the amount put into the earthen pot varied. Some gave one anna pieces while others gave half-anna bits. As this was going on the following persons came from Budhni's father's family at Nauagar. They were : Budhni's elder sister, elder brother's wife, elder brother, younger brother's wife, father's younger sister. They brought with them about 10 *pailas* of rice, some quantity of rice-beer and vegetables, which were used for the next day's feast. As soon as they entered the courtyard of Jhirgia's hut they began to mourn loudly. After taking some rest they also repeated the above rites one by one and put one anna or half-anna coins into the earthen pot according to their capacity.

When all this was over Jhirgia gave blows on the forehead of the goat three times by means of that ploughshare which was kept on a winnowing fan. After that Chomra and Cherwa took the goat outside the hut and killed it by cutting off the head by means of an axe ; the tail and two hoofs (one of the front leg and the other of the hind leg) were also cut off from the body. Then the head, the tail and the two hoofs were handed over to Ghasi who again cut the tips of the ears and the lips with the help of the ploughshare. All these excepting the head were placed in a leaf cup in which some rice grains had been put already. The body and the head of the goat were kept aside for the next day's feast.

Ghasi then stood up and held the leaf-cup in one hand and the stick in the other. Jhirgia also stood by his right side. Ghasi then touched the leaf cup with the stick and prayed to the dead ancestors to take back Budhni among them, After the

prayer Ghasi poured some portion of those things from the leaf-cup into the pit by means of the stick. This he repeated three times. By the third time everything in the leaf-cup had been poured into the pit. He then took his seat and put some rice grains into the pit and holding the egg over the pit he prayed to Dharitrimata or the earth goddess. After that the egg was broken and its substances were poured into a leaf-cup into which a few rice grains were thrown. The whole thing was then handed over to Chomra to fry, this being later eaten by Ghasi. The shell of the egg was thrown into the pit.

After that the pit was covered with earth by Ghasi. Thus the *Uturkhila* ceremony came to an end. It was about 2.45 p.m. when the ceremony was over.

Ekh-mangkho or calling back the Soul

When the *Uturkhila* ceremony was over, a party consisting of Ghasi and five married women namely Paro, Suko, Chari, Singi and Towa went to a field at the outskirt of the village on the way to the burial ground. According to them no young man or woman or children are allowed to accompany them. They took the following articles with them : three twigs of *sakhua* tree, a sickle, a ploughshare (all these were kept ready on a winnowing fan mentioned earlier), a bundle of straw, a pot of rice-beer, a jug of brass filled with water and a match box. On reaching the place Ghasi made a miniature hut-like structure with the straw and twigs. Then he applied fire to it. And all began to drink rice-beer. After this Ghasi made a sound by striking the share and the sickle with one another and said, 'Oh, Budhni, your house is burning, please come back soon'. He repeated this three times and the women folk loudly called Budhni to come back home. Then Ghasi started walking towards the hut as Jhirgia and the rest followed him. Before starting they extinguished the fire by pouring water from the jug. On the way back Ghasi made a similar sound three times by striking the sickle and the share. They said that in order to lead the soul on its way to the village those sounds were necessary.

In the meantime, when Ghasi with the party of women had left the village, Kaila cleared a small portion of the floor of Jhirgia's

hut on the right side of the door (it was the hut in which Budhni died) and smeared it with cowdung and water. Then a wooden slab was placed over that spot with a *kando* or a pad of coiled straw upon it. Then a spouted jar of brass filled with water was placed over the pad. And over the mouth of the jar an earthen lamp was kept burning, while in front of the wooden slab some rice grains and a leaf-cup containing rice-beer were kept side by side. Then a chicken of white colour with yellow spots over the body was brought there and allowed to eat some rice grains and drink the rice-beer. After this the chicken was removed from that place and kept separately somewhere else as it would be required for sacrifice on the following day. When all this was being performed, Kaila and Ainsho sat by the side of the lamp after closing the door. They sat silently keeping watch over the flame and waited for Ghasi and his party to return.

When Ghasi's party came back, Ghasi reached the front of Jhirgia's hut, kicked the closed door with one foot, and the following conversation took place between him and Kaila. Ghasi was talking from outside whereas Kaila replied from within :

Ghasi : Who is in our hut ?
Kaila : I am inside your hut.
Ghasi : Are you happy or unhappy ?
Kaila : No, we are happy.
Ghasi : Are you a stranger or our own ?
Kaila : Your own people.

Then the door was opened and Ghasi entered the hut. Thus the *Ekh-mangkho* ceremony was over. Kaila said that as soon as Ghasi kicked the door the flame of the lamp changed its direction for a moment, indicating that the soul of Budhni had come back and, as such, he replied in the above manner.

Hosal paichana or Collecting the Bones

When the *Ekh-mangkho* ceremony was over the following persons started towards the burial ground at about 3-45 p.m. The male persons were Kaila, Ghasi, Mongra (I), Mongra (II), Chomra, Ainsho and females were Paro, Suko, Singi, Towa,

Budhni's elder sister and her father's elder brother's wife. Before starting Ghasi broke the oven and the bigger earthen pot in which *khai* had been fried by kicking them with one foot. Then he started with the winnowing fan which contained the egg etc. on his hands on which some quantities of paddy, *khai*, those three pieces of bread of rice powder, the small earthen pot and those three leaf bags were kept. All along the way to the burial ground Paro went side by side with Ghasi and kept fanning the winnowing fan with one end of her *sari* (wearing cloth). Towa was carrying a basket containing paddy and cotton. She went on throwing now and then a few grains of paddy and pieces of cotton on the way. As told by an informant these were done to mark their path so that the soul of Budhni would be able to follow them easily. The rest of the persons excepting Suko and Chomra simply followed them. Suko was carrying a metal cup containing rice grains and water. Besides these he also took five plates and five cups made of *sakhua* leaves along with some *sakhua* leaves and turmeric powder. Chomra went with a tin bucket in his hand.

On reaching the burial ground Mongra (I) brought water from the low-lying fields in the tin bucket. He then extinguished the pyre by sprinkling water over it and then broke the figurine which had been burnt on the pyre. In the meantime, Chomra brought some cowdung from nearby fields and Kaila took out the *dubha*, piece of *kafi-luga* and vermilion which had been kept in a bush in the morning.

Suko then took a bit of cowdung, turmeric, and water on a mango leaf and went round the burnt pyre in an anti-clockwise direction and threw them outside the pyre. The same operation was repeated by Chari and Paro. According to them this was done in order to purify the earthen figurine.

Then Suko put those leaf-plates on the ground and on each one of them a leaf-cup was placed. After that she placed small quantities of uncooked rice on the leaf-plates and water in the leaf-cups. These were taken from the metal cup which she had brought while coming to the burial ground. She was helped by Chari. Then Suko and Chari took up one of those plates and went round the pyre (in an anti-clockwise direction)

and placed it on the eastern side of the pyre. Similarly two more plates were kept on the eastern side and two on the western side.

After that Suko, Chari, Paro, the elder brother's wife and the elder sister of Budhni began to collect the bones of the broken figurine, i. e., the betel nut, the cowrie, the copper coin which had been inserted into the figurine and a few pieces of the burnt figurine. At the time of collection they kissed the pieces first and then transferred them to the metal cup, brought from home, by means of the left hand.

After that, the piece of cloth which had been left at the burial ground in the morning, was torn into two halves. On one half the bones were transferred from the *dubha* by the female persons in the same manner, i. e., by kissing each piece and transfering it by means of the left hand.

Then the small earthen pot was put on the other half of the cloth which was in turn tied round the body of the pot by Ghasi. Again those five women transferred the bones from that piece of cloth into the small earthen pot in a similar manner. According to them the women who are to transfer the bones should always be in odd number.

Then Ghasi made a conventionalized human figure by means of *kashi* (a kind of grass) to represent the deceased person and kept it on a *sakhua* leaf. Such a figure is known a *lungi.* After this he took the winnowing fan in his hand and went round the pyre three times, scattering paddy and *khai* on all sides. This time he moved backwards in an anti-clockwise direction. Then he took a few grains of paddy from each of the five leaf plates mentioned earlier and some quantity of ashes from the pyre. Then all these and the *lungi* were placed in the small earthen pot by him. This ceremony is known as *lungi chak dam.* After that, he spread paddy grains, *khai*, those leaf-bags and the three pieces of bread of powdered rice all over the burial ground in the name of the deceased villagers. Similarly he also scattered the paddy and cotton from the small basket after putting a handful of rice grains and some quantity of cotton on the south of the pyre.

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Chomra then followed Ghasi and scattered some ashes from the pyre thrice dedicated to the deceased persons of the village. Then Ghasi put the piece of cloth from which the so-called bones were transferred into the earthern pot over the burnt pyre and cotton thread was tied around it.

After this all the women put a few water-soaked rice grains into the earthen pot. They told us that this was done to feed the deceased. Then all started towards the *kundi,* which is a pool or spring of water having a large stone by its side known as *palkhi.* Each clan has a separate *palkhi* of its own. The Oraons believe that 'the spirits of deceased members of a clan live in an underground settlement of their own near their village *Kundi*'*. In this case the *kundi* is situated at a distance of about half a mile from the burial ground. On the way, Mongra (I) carried the earthen pot and Paro fanned it with one end of her *sari* all along the way. While walking towards the *kundi* the women placed some grains of rice into the earthen pot twice.

Harbora or Disposal of the Bones

When the party of men and women started from the village to perform the *Hosal paichana* rites in the burial ground, Jhirgia also accompanied them, but he went directly towards the *kundi* with a chicken without halting at the burial ground. The chicken was white in colour with patches of yellow all over its body. He killed the chicken by twisting its neck and then threw it into the *kundi* and applied vermilion on the surface of the *palkhi.* All this was done before the party reached there after the *Hosal paichana* rites.

As the party came near the *kundi,* Mongra (I) who was carrying the earthen pot took out the coins from it and handed over the pot to Ghasi. The amount of money collected was Rs. 1/9/- only and this money was reserved for the next day's feast with the money collected earlier.

After taking the earthen pot from Mongra (I), Ghasi tore into pieces the rice-bread which was on the mouth of the pot and scattered the pieces around the *kundi.* He then held the

* Roy S. C., : *Oraon Religion and Customs,* 1928, p. 31.

pot in his hand and walked round the *kundi* thrice in an anti-clockwise direction. Then suddenly he threw it forcibly against the lower part of the *palkhi* stone bordering the water level. The pot broke and all its contents fell into the water. As soon as Ghasi did this, Mongra (I) sprinkled water from the *kundi* on Ghasi and then on all the persons assembled there with the help of the winnowing fan. This is supposed to be a sort of purificatory ceremony. After that everybody washed his hands and feet and started on his way back to the village.

Returning from the Kundi

After returning from the *kundi* every one entered the courtyard of Jhirgia's hut. In the meantime, Basi had kept a small fish along with some husks of paddy on the blade of a hoe. She also kept some mustard oil and powdered turmeric in metal and leaf cups respectively nearby. When the party returned Basi lighted the husks. Then all the persons who had gone to the *kundi*, excepting Mongra (I), smeared their hands and feet with oil and turmeric powder and touched the fire. But Mongra's hands and feet were smeared with oil and turmeric powder by Lado's daughter who was a married woman. Mongra (I) in return gave her one anna. We were told that the hands and feet of the person who carried the so-called bones in an earthen pot from the burial ground to the *kundi* are smeared with oil and turmeric powder by a married woman—any married woman can do it. Then all began to drink rice-beer.

In the meantime, the heart of the goat which had been sacrificed during the *Uturkhila* ceremony was taken out and boiled with rice by Chomra and Mongra (I). This was eaten by every person present irrespective of age and sex. On that night a meal was prepared and this was taken by the persons present there.

Next day's Ceremony and Feast

In the morning of the next day, at about 9 a.m., the purificatory ceremony of the hut in which Budhni had died was performed. Within the hut Basi kept a *dubha* or metal cup containing some water, a small quantity of turmeric powder, one copper coin,

sacred basil leaves and leaves of the mango tree. Kaila then brought the chicken which had been brought there on the previous day at the time of *Ekh-mangkho* ceremony and gave it some rice to eat. After that, he killed it by twisting its neck. The chicken was to be eaten later by Kaila and Ainsho after cooking, as both of them were present there on the previous day. Kaila then sprinkled water from the *dubha* by means of the mango leaves on the inner and outer side of the hut and also in the courtyard. The hut was thus purified. This ceremony is known as *Ghar uttdhar*.

In the meantime, the preparation for the feast was going on wtih the active assistance of Jhirgia, Mongra (I), Chomra, Kaila, Ghasi. Gradually the villagers began to assemble at Jhirgia's hut and they began to drink *haria*. At about 2-30 p.m, when the cooking was over, meals were served to the guests. The menu was rice, *urid* pulse, vegetable curry, meat curry and some fried vegetables. In the evening everything was over and the villagers left for their respective homes.

A STUDY OF FOLK CATTLE RITES

By S. K. DAS

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NUMEROUS are the folk cattle rites observed in different parts of India. Here an attempt has been made to refer to some of these rites with a particular reference to the *Gokal-vrata* observed by unmarried girls in Bengal.

Go means cattle and *kal* is that which grows out of the earth, i. e., grass or plants. The term *kal* is also used in the sense of sprout. This *vrata*-rite is associated with the offering of grass to cows or cattle in general. Hence the rite in which grass is offered is called *Gokal-vrata*.

This *vrata* rite is observed in the month of *Vaisakha* (April-May). Articles required for the observance of the rite consist of three bundles of *durva*-grass, one *ghati* (earthen pot) of water, mustard oil in a small pot, a little turmeric paste, a little vermilion, sandal-wood paste, three ripe plantains, a small mirror and a conch shell. In the first place, oil is rubbed on the horns of a cow and then water is poured down on her head. Then turmeric paste, sandal-wood paste and vermilion are applied on her forehead. After the application of oil and turmeric paste on her hoofs, her legs and hoofs are bathed in water and wiped with the cloth of the observer. Then her hair is combed and she is shown her face in a mirror and fanned. Then one bundle of *durva*-grass and plantain are placed before her as food. In this way the observer feeds the cow thrice along with the chanting of the following *chhada* or poem :

By fanning you, I shall wear conch bangle, coated with gold,
By fanning you, I shall rear my family by killing the co-wife.
Away shall fly sorrows and diseases,
Away shall go worms and fleas.
Agaru and *chandan* (agullochum and sandal)-scented breeze,
Soothes the body of *Bhagavati* (consort of Siva).

Time devoted to the cow is like time spent in *Gokul* (residence of Vishnu).
Thus to the mouth of the cow, grass do I give,
So that a life in *Vaikuntha* (residence of Vishnu) may I receive.

The rite is completed with an obeisance to the cow. For consummation of the rite, four silver hoofs, two gold horns, a piece of cloth, one stick and an umbrella are required. In some parts, on the day of completion, a priest is called for performing *Yajnas.* The stick and the umbrella are given to the cow-boy while the gold and silver articles are presented to the priest. In some places again clothes, mirror, comb, etc. are also given to the cow-boy. It is said that the observance of the rite makes the life of the observer happy and prosperous and free from all sorts of disease ; and after death she gains a place in *Vaikuntha.* This is also clear from the *chhadas* chanted at the time of the observance of the rite : 'Of all animals, the cow is the most sacred. Every part of her body is inhabited by some deity, each hair of her body is inviolable. All her excretions are hallowed. Any spot which a cow has condescended to honour with the sacred deposit of her excrement is forever consecrated ground, and the filthiest place with it is at once cleansed and freed from pollution, while ashes produced by burning this substance are of such a holy nature that they not only make clean all material things, but have only to be sprinkled over a sinner to convert him into a saint'.

If a Hindu happens to be responsible for killing a cow, he is to go to the Ganges for a sacred bath and has to undertake a costly penance. Cattle are also very dear to the peasants and to common people in general because they are the main source of food supply. It is for this reason that the people from very early times have devised numerous rites and ceremonies to be performed for their welfare and thereby for securing their own ends. Most of these cattle rites are again associated with agriculture.

Several other important cattle rites are observed in different parts of Bengal at different times of the year, namely *Goraksha-*

natha, *Godana*, *Gopashtami*, *Govinda*, etc. In the district of Pabna and other places it is believed that if the *vrata* of *Gorakshanatha* is observed on the first Sunday after the 30th day from the day on which a cow has given birth to a calf, the cow's milk will increase and that nobody will be able to do her any harm. When this *vrata* is completed, one boy dressed up in the guise of a cowherd, wrapped in plantain leaves, adorned with flowers and *durva*-grass and smeared with powdered rice, starts in procession with the figures of the cow and her calf all fashioned out of clotted cream.[1] As in the *Gokal-vrata* so also in *Gopashtami* which is held on the 8th day of the light fortnight and in *Godana* on the day next to *Divali*, garlands are hung on the neck of the cow; their horns, hoofs and bodies are anointed with oil, and offerings are made to them.[2] Deities like *Krishna*, *Satyanarayana*, *Govinda*, *Gopala*, etc. are also worshipped, and the rites are observed for the protection of the cattle from all sorts of evil influences. Water consecrated to them is also sprinkled on the cow-shed for their protection. In the district of Murshidabad, another godling named *Bangsana* is worshipped for the general welfare of cattle. Similarly, in some places of the district of Dinajpur, the agriculturists worship a god named *Kandi* who is regarded as the protector of cattle.[3] These deities like *Bangsana* and *Kandi* are not mentioned in the Puranas, and it is quite likely that they are non-Aryan deities in the process of absorption into Hinduism. In the cult of *Sonaraya* of Eastern Bengal and Bihar, the boys go out singing and begging for the welfare of the cattle.[4] In the month of *Bhadra* a worship its offered to the cow in the cow-shed as the representative of *Bhagavati*. During the *Dolpurnima* in the month of *Phalguna*, cattle rites are observed by the Gowalas.[5] In Sylhet, both Hindus and Muslims believe that unless they offer *sinni* (*sirni*) to the *Pir*, cattle will die.[6] The festival of *Govardhana* is very common all over Northern India. In this observance the cowherds go round singing and collecting gifts from house to house. It was so popular that in the 16th century, Akbar ordered that on the *Devali*-day several adorned cows were to be brought before him.[7]

In other parts of India as well, numerous rites are observed in honour of cattle. In Gujarat and Western India there is a *vrata* called *Gaurat* in which perambulation is made round a cow.[8] Women of Thana district fast the whole day of the 12th of the dark half of *Asvina* (Sept.-Oct.). At night they worship a cow and give in charity a calf, and then only they are entitled to take their meals.[9] In Konkan the cow is believed to be the abode of all deities. Some women take a vow not to take anything before worshipping a cow, and if a cow is not available, they draw in turmeric, white or red powder, the cow's foot-prints and offer worship to the same. After the completion of this worship gifts are made to Brahmins.[10] In the Bombay Presidency all domestic animals, on the first day of the month of *Magha* (Jan.-Feb.), are bathed in hot water and dyed with red paint. Then lighted lamps are waved before their faces. They are also served with dainty food.[11] In the Punjab the cow is worshipped on the 8th day of the bright half of *Kartika* (Oct.-Nov.), i. e., on the *Gopashtami*-day. In the evening men and women go to the cows and worship them by garlanding their horns and adorning them with flowers. Each one is also fed with flour-balls ; her hoofs are dusted. She is worshipped with the following prayer :

'Oh Cow ! Oh Mother ! Keep us happy.'

Again a woman worshipping a cow paints her forehead with sandal-paste and red lead and sings :

'Oh ploughman ! Thou of the Yoke ! I appeal to thy mercy ! Eat thine own earnings and credit mine to Hari's account.'[12]

Women also make a *Govardhana* with cow-dung and observe rites with it.[13] In the district of Dharwar a rite similar to that of the *Gokal-vrata* of Bengal is observed. The main ceremony takes place on the first full moon of *Ashadha* (June-July). On the previous day the feet of the cattle are washed with water, necks anointed with oil, butter or turmeric, and on the following morning the horns and the bodies are coloured with red earth and bedecked with bells, silver and brass chains. They are worshipped and then fed with cakes. The cattle are then taken out in procession.[14] In Southern India

at the time of the *Pongal* festival, cattle are adorned with garlands; their horns are dyed with colour and wreaths of mango-leaves are hung round their necks. They are then led in procession being exempted from all kinds of work.[15] In Bombay and the Deccan the *Pola* festival is observed on the new moon day of the month of *Shravana* and *Bhadra* (July-Sept.) The Kunbis observe it in the month of August. They also bedeck the cattle with garlands of flowers, anoint them with sandal-wood paste. They are also served with dainty food. Then they are made to circle round the temple of *Hanuman*. In Berar the cattle, in procession, pass round a sacred place.[16] In Bihar on the *Govardhana*-day women of all castes pray to the human effigy of a cow along with the use of some obscene language to avert evil eyes.[17] At Kanpur cowherds celebrate the worship of *Govardhana* in the from of a little heap of cow-dung.[18] Again in Bihar on the day after *Divali* the well-known festival *Gaydanr* is celebrated in the afternoon. K. Mitra has give a detailed description of this rite.[19] In Bengal it is called *Govardhana*-day, when the Goalas make rude images out of cow-dung representing the cow, cow-herd, etc. In Sindh a similar ceremony is observed and worship is offered to *Balraja*. It is also a custom in Bengal and Bihar to sacrifice a pig in the *Gaydanr* festival. But amongst the Malbas the cattle are darkened over, and a wild boar is killed and buried. These are believed to benefit the cattle.

Amongst a large number of aboriginal tribes there are almost identical rites in honour of cattle as a protection against any harm done to them, as well as for good harvest. The most important one is the *Sohorai* festival observed by the Oraons of Chotanagpur. It will not be out of place to give here a description of the rite as given by the late S. C. Ray.

'The *Sohorai* festival in which the Oraons anoint the forehead and the horns of the cattle with vermilion and oil and wash their hoofs and entertain them with a hearty food and light lamps in the cattle-shed at night. A fowl is fed with a handful of *arua*-rice and placed on the floor by the head of the

family and then washed outside. The fowl is then sacrificed to the *Goensali Nad* or *Gohar Deota* or *Gonroa*. While sacrificing it is said,

"Now I have sacrificed to thee. Go away carrying with thee all sickness and sins. Do not afflict us with sickness and other calamities."

'In the evening of the new moon day of the month of *Kartika* (Oct.-Nov.) a number of newly made earthen lamps fed with oil are lighted in all rooms, cattle-sheds, etc. In the morning the cattle are bathed in the same tank and then taken into the family cattle-shed where some female members of the family sprinkle rice-beer on the hoofs of the cattle which are given slices of spiked tuber (*Colocasia antiquorum*) mixed with salt to eat and are also given a hearty food of the *bodi*-grains boiled overnight. The horns, forehead and the hoofs of the cattle are then anointed with vermilion diluted in oil. In some families fowl are sacrificed. After the cattle have been fed, they are taken away by young bachelors to the village pasture grounds. Some families who own baffaloes, sacrifice a black pig. On this day and on the following day a few Oraon boys dressed from head to foot in straw and decked with flowers go from house to house playing on drums, dancing and begging for gifts of rice and other grains and vegetables. One or two of them dressed in paddy-straw like women carry make-believe babies on their back. These boys are called *Dundu* and this begging and flea-driving are known a '*dasa-masa*' ".[20] The practice of dressing up a person in straw or in a sheaf of corn, which means a human duplicate of the corn spirit, and straw baby represent the new corn and progeny. Thus they practise sympathetic magic.

Again, on the new moon day of the month of *Kartika* (Oct.-Nov.), certain rites are observed near the cattle-shed where several balls of cooked rice are put in a circle formed by rice, and a fire is kept lighted with *ghee*. Then the householder sacrifices five chickenes with the prayer,

'Oh Dharma ! We offer this sacrifice to thee. During the coming year keep our cattle free from diseases and be kindly.'

While offering wine another man says,

'Oh Dharma ! We pour this to thee.'

Then the horns of the cattle are painted red and they are set free to trample under foot a Bhil cowherd. This practice is regarded by some as a remnant of human sacrifice.

Among the Hos of Chotangpur, there is a common festival known a *Hero parab* which is observed in the month of *Bhadra* (August-Sept.). The cows and buffaloes are bathed and then brought home. Then oil and turmeric are applied on the horns, and lastly they are supplied with a delicious drink prepared with a paste of *arua*-rice boiled in water. Moreover, in the Deccan and in the district of Hosangabad, a rite of cattle racing is observed ; probably for making the cattle more active and for the supply of plentiful crops.[21] The Cheros observe the *Nagapanchami* festival in the month of July. It is not, however, associated with the snake worship but with the deity presiding over the cattle. On the day of the festival the cattle are given complete rest, the horns are painted red, smeared with *ghee* and the best food article is served to them.[22] It is, however, very difficult to say, how the word *Nagapanchami* became associated with the cattle rite. It is undoubtedly a Brahmanical name which was most probably borrowed by the Cheros and they must have named the cattle festival after it without realizing its meaning and significance. There are numerous other cattle rites prevalent amongst the primitive tribes.

It is now evident that cattle rites and cattle worship are common all over India. All these observances have many common features, such as bathing the cattle, anointing them with oil, vermilion and turmeric, feeding them with dainty food, procession of the cattle, animal sacrifices, etc. Some of these features are also common to the *vrata*-rite observed in Bengal. The benefits acquired through the rites are almost the same—to protect the cow from all sorts of evils, to drive away fleas and worms, to get ample agricultural produce, etc. Besides, some deities are also associated with the cattle both in our rite as well as in the rites observed by the primitives. In the

rite of Bengal, there is, however, no evidence of any animal sacrifice or procession of the cattle. But we have already seen that in certain other rites which are still observed in Bengal, processions and animal sacrifices play the most important part. These again are all magical in character, i. e., they practise magic by which they desire to protect the cattle and to get an ample harvest.

The sanctity of the cow is foreign to the *Rigveda* and other earlier Sanskrit texts. Sacredness attached to the cow predates the Rigvedic Aryans who regarded the cow as a favourite sacrifice to the deities. Even in the *Yajur-veda* Indra is described as the recepient of the cow. The early *Vedas* enjoin *Gomedha* and the *Yajur-veda* lays down a list of deities to whom bulls, cows, etc. are to be sacrificed. The first prohibition of cow-killing is found in the *Atharva-veda* where it has been definitely stated that the cow should not be killed because it is opposed to public opinion or feeling. Who represented this public opinion or feeling ? They were, no doubt, the non-Aryans amongst whom the sanctity of the cow was already an established fact. This is further proved by the fact that the sanctity of the cow is more widespread in Southern India. Further, these rites are not sanctioned in the Puranas or other Brahmanical literature. This certainly points to their non-Aryan origin.

Slater thinks that the connection of Siva with the cow or buffalo is foreign to India, and that the sacredness attached to the cow was imported from the Egyptians who were a pastoral people.[23] But this hypothesis does not hold good with our evidences. It is at the same time very difficult to prove that it was imported from Egypt. Dr. Hutton suggests its association with the religion of Asia Minor, Egypt, Crete, etc. He further contends that the sacredness attached to the cow was introduced into India by the people who came from the steppes of the north-west to conquer northern India. He does not accept Marshall's antithesis between the worship of the bull and the worship of the cow and says that 'both are surely different aspects of the same reverence for cattle which characterises the pre-equine civilization of the Mediterranean basin and in India

are pre-Aryan in origin'.[24] There is no denying the fact that cattle worship is pre-Aryan, but it is very difficult to associate the cattle rites with any particular racial group. We have already seen that the people amongst whom the rite is prevalent belong to different racial groups. And it is hardly possible to associate it with any particular region or race. It cannot, however, be questioned that the sacredness attached to the cow was foreign to the Indo-Aryans who came to India at a later period and found the rite prevalent among the non-Aryans. This becomes further clear from the Indus Valley finds. It is from the non-Aryans that the Aryans later on accepted the rite in question and gave it a sanction in their own religion.

In a still later period when neo-Brahmanism or Hinduism developed, this rite in honour of the cow was absorbed and moulded to suit its purpose and ideals. In the Puranas, legends and stories have been invented to identify the cow with the gods and goddesses. It has been further laid down that all the deities reside in the cow. In several rites we find Krishna, a later deity, worshipping the cow, and he has been further described as having taken birth in the house of a cow-herd and passing his early days among cow-herds. Further, the Puranas associate cow-worship with *Govardhana*, the scene of Krishna's exploits against Indra. The Puranas also refer to *Go-puja* and *Go-kriya* on the first day of the lunar month. A critical analysis of the puranic rites and the folk rites in honour of cattle proves its non-Aryan origin ; later on, it was accepted and absorbed into Brahmanism or Hinduism which moulded the rite in its own way giving it entirely a new form in the hieratic religion.

REFERENCES

(1) Journal of the Department of Letters, Cal. Univ , 1927, p. 18.
(2) Ibid., p. 23.
(3) Hindusthan Review, 1922, p. 158.
(4) Journal of the Department of Letters, Cal. Univ. 1922, pp. 172-81.
(5) Man in India, Vol. IX, pp. 268-70.

(6) Ibid. Vol. X, p. 184.
(7) Blochman, Ain-i-Akbari, Vol. I, p. 216.
(8) Indian Antiquary, 1911, pp. 1-86.
(9) Ibid. 1914. p. 19.
(10) Ibid., pp. 83-84.
(11) Journal of the Department of Letters, Cal. Univ. 1927, p. 14.
(12) Rose, Glossary of Tribes and Castes of the Punjab and N.W.P., p 138.
(13) Ibbetson, Punjab Ethnography, p. 120.
(14) Indian Antiquary, 1875, p. 355
(15) A list of Holidays of the Hindus and the Muhammadans, pp. 55-56.
(16) Crooke, Religion and Folklore of Northern India, p. 26.
(17) Buchanan, Eastern India, Vol. I, p. 194.
(18) *Crooke, Religion and Folklore of Northern India*, p. 261.
(19) Indian Antiquary, 1931, pp. 187-89.
(20) Ray, Oraon Religion and Customs, p. 320 ; Mundas and their Country, p. 481.
(21) Crooke, Religion and Folklore of Northern India, p. 259 ; Russel, Tribes and Castes of Central Provinces, Vol. II, p. 33 ; Folklore, vol. XXVIII. p. 154.
(22) Man in India, Vol. IX, p. 231.
(23) Slater, Dravidian Elements in Indian Culture, p. 108.
(24) Hutton, Census Report, Vol I. Part. I. pp. 395-96.

THE KON-TIKI EXPEDITION*

By SUNITI KUMAR CHATTERJI,
M. A. (Calcutta), D. Lit. (London)

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THOR Heyerdahl, the author of this great work, is unquestionably one of the noteworthy personalities of the world at the present day, as an explorer, as a scientist in anthropology, as an antiquarian and as a writer. Some years ago, while visiting the South Seas, he was impressed by Polynesian traditions that the ancestors of one section of this people came from the East, from the land from where the Sun rose, a land of high mountains. Later on, points of agreement in the cultures and traditions of Polynesia and Andean America—particularly Peru—suggested to him the strong probability—not merely the possibility—that there was a movement of people and civilization from Peru into the islands of Polynesia. This view of his in which he became confirmed ran counter to the generally accepted opinion among anthropologists that the Polynesians were related to the Melanesians, the Micronesians and the Indonesians culturally, and that they came from the mainland of Asia straight to their present homes by way of Indonesia and Melanesia. One great objection from anthropologists to Heyerdahl's thesis that it was not from the West, from Asia, that Polynesia got her people, but from the East, from South America, was that it could not be possible for Andean Americans with their primitive rafts to come from Peru and after crossing thousands of miles of open sea find their way to the islands of Polynesia. Heyerdahl as a

*Being the review of *American Indians in the Pacific: The Theory behind the Kon-Tiki Expedition* by Thor Heyerdahl. London: George Allen & Unwin Ltd. Stockholm: Bokforlaget Forum A. B. Oslo: Gyldendal Norsk Forlag.

First published 1952: printed in Sweden: size 10″ × 17″; pp. 821, full cloth, 90 plates, numerous text-figures and maps. Price 70 Shillings net.

student of oceanography insisted that the currents in the Pacific in the area between Peru and Polynesia were from the East, while these west-going currents were also present to the West of the Polynesian group of islands, and this situation made maritime movements of peoples far easier from the East to the West and exceedingly difficult (if not impossible for primitive sailing or rowing craft) to move from the West to the East. Not being able to convince anthropologists who were authorities on the Polynesian question, Thor Heyerdahl, with rare daring and spirit of adventure, decided to demonstrate by actually sailing on a raft such as the ancient Peruvians employed in sailing in the ocean (and which according to Peruvian traditions actually enabled early Peruvians to make voyages to the Polynesian islands and to return home, to leave stories about it all) that this voyage in prehistoric craft was possible, the current and the winds being always there as the most favourable factors. Heyerdahl made history in 1947 by actually preparing his raft with balsa wood from the Andes Mountains such as the ancient Peruvians employed, and by traversing from the port of Callao in Peru to the island of Puka-Puka in Polynesia in about 93 days. He was accompanied by five other Norwegian stalwarts, with both science and adventure in their veins, namely, Knut Haugland, Bengt Danielsson, Erik Hesselberg, Torstein Raaby aad Herman Watzinger ; and in this remarkable enterprise of his, he was substantially assisted by the U. S. A. Military Department, the head of the Equipment Department of which, when he ordered the furnishing of some of the major requirements for the expedition, remarked laconically and to the point : 'But courage and enterprise count, too. Colonel Lewis, let them have the things.'

The account of this remarkable expedition on which these six men staked their lives was the outcome of an anthropological theory which had developed in the brain of Thor Heyerdahl. He named his raft 'Kon-Tiki', as it was the name of the Sun-God ancestor of the Polynesians who came from the mountainous land of the East, Peru. The saga of the Kon-Tiki expedition written by Thor Heyerdahl which was first published in September 1950 and ran through over a dozen editions within a

year by now, has already become a classic of sea-roving—a fitting work emanating from one who is a true compatriot of the Vikings of Scandinavia. This work, with the hazardous undertaking in the background, is but the ***hors d'oeuvre*** of the great feast in anthropology which Heyerdahl has offered in his ***magnum opus***, which certainly forms an outstanding contribution to the obscure story of pre-historic human movements over vast spaces of the earth ; and it is destined to remain a classic work in its domain ; what definite positive results have been achieved in this great work the present reviewer as a layman cannot venture to affirm, but certainly a strong case for his theories has been made by the author.

I had great pleasure of reading Heyerdahl's book on the Kon-Tiki expedition when I was in America (Philadelphia) during the end of 1951 ; and after returning to India on 31 March 1952, a few months later I was very pleased and surprised at the same time to see the fruition of the scientific work of Heyerdahl in this magnificent volume which I have been asked to review for *Man in India*. It was for me a book to revel in for some weeks past, in the intervals of other pressing work ; and I now proceed to give what are just the reactions of a layman in anthropology for what every one will consider to be a great book—great not only in its size and its all-inclusiveness in the subject, but great also in being at the same time a very suggestive and an inspiring work in the solving of the riddle of Man and his cultural strivings and his rovings, in quest primarily of a peaceful existence and secondarily to satisfy his curiosity.

A ***resume*** of the contents of the work will be useful in appreciating its scope. First, there is a short *Introduction* (pp. 3-10) on the Polynesian Problem. Then we have Part I of the book (there are ten such parts), pp.12-68, on ***Polynesia and the Old World***, in which the author states the ***pros*** and ***cons*** for the affiliation of Polynesia in its population to the Old World of Asia. All the arguments—anthropological and somatological, and linguistic, archaeological and cultural, and those based on traditional history—are exhaustively dealt with and discussed ; and Heyerdahl's findings for the direct Asiatic origin of the Polynesians are negative. In the linguistic aspect of the question,

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Heyerdahl quotes the authority of William Churchill of the Carnegie Institution of Washington, U. S. A., that only a bare 250 words out of a vocabulary of 25,000 in the Polynesian language, forming a mere 1%, are common to Polynesia and Indonesian. This would seriously assail the theory of an Austric family of languages (in its Austronesian branch) as propounded by Pater W. Schmidt, which now obtains the field.

In Part II (pp. 71-158 : *Polynesia and North-West America*), Part III (pp. 161-178 : *The Road through Hawaiki*) and Part IV (pp. 181-215 : *The Complexity of Polynesian Origins*), the main thesis of the author is presented. The subsequent sections present materials in support of the author's views (Part V, pp. 219-345 : *Traces of Caucasian-like Elements in pre-Inca Peru* ; Part VI, pp. 349-424 : *Stone Human Statues and Megalithic Cult Sites* ; Part VII, pp. 427-498 : *Botanical Evidence of Polynesian Routes*, with an Appendix, pp. 501-509, on *Some Ethnological Notes on the Fauna* ; Part VIII, pp. 513-620 . *Aboriginal Peruvian Navigation in the East Pacific* ; Part IX, pp. 623-707 : *Polynesia and South America—Some Inherited Analogies* ; and Part X, pp. 711-763 : *Myths and Memories).*

The thesis of Thor Heyerdahl can be briefly stated as follows :

The Polynesian people show two main elements in their composition, over and above a third submerged element the origins of which last is the least understood or solved. (1) There is a Caucasian-like element, of a people with fair skin, straight noses, blond or brown coloured wavy hair, with full beards in the case of men. (2) This was overlaid by another race of yellow-brown people, entirely Mongoloid in their affinities. The traditions and cultures of the two peoples, after the usual hostile and then peaceful contacts, fused when racial fusion took place, and we have as a result the Polynesians as we find them. (3) We have traditions and traces of a third element in the population, of a black prognathous people known to some of the later Polynesians as the *Manahune*, a people who appear to be Melanesian in origin, which formed in some of the islands at least the basis of a serf class.

(1) The first element, a Caucasian-like people, came from Peru, and they sailed in big rafts from Peru to the islands in the West, touching first Rapa Nui or Easter Island and going as far west as Tahiti and Samoa. Carefully preserved genealogies of their descendants would take their settlement in Polynesia back to about 500 A. D. (Heyerdahl like many other anthropologists thinks that the colonization of Polynesia by Man was a rather late event in history). Round about that date, it is clear from ancient Peruvian traditions, a pre-Inca people with a civilizing role who had established themselves in the Andean regions came in conflict with the local Mongoloid Amerindian populations which had themselves derived their *own* civilization from these Caucasian-like men established in their country as a sort of a Herrenvolk (particularly round about the lake of Titicaca) ; and in this conflict they were worsted, and rather than continue to fight among a hostile 'native' population, they left their country in rafts (which formed the only maritime craft available to them) and arrived in Easter Island and other islands of Polynesia. Elements of civilization they brought with them from Peru, included religious cults centering round a Sun God called in both Peruvian dialects and in Polynesian *Tiki* or *Kon Tiki*, huge stone figures of this Sun God as an ancestral hero, and stepped pyramidal temples, together with some cultivated plants like the *kumara* or sweet potato, two kinds of gourd, one kind of cotton, the papaya fruit and possibly also the coco-nut. (But it is remarkable that valuable food plants like the maize and the potato, and the art of making pottery in which the ancient Peruvians excelled, were not brought to Polynesia).

This Caucasian-like race from Peru spread all over Polynesia. The native genealogies of descendants of this people preserved in Easter Island and elsewhere take the first colonization back to 58th generation from the 19th century, which would mean roughly about 500 A.D. The peopling of Polynesia was a late event in human history, and this date as a starting point for the advent of man and the beginning of his movements in Polynesia accords very well with other facts of Polynesian history.

The antecedents of this Caucasian-like race in the New World, which was an area first peopled by Mongoloids from Asia through both Behring Strait from Siberia into Alaska and along the coast of Japan and the Aleutian Islands to the west coast of Canada, are shrouded in mystery. It is clear, from both traditional History and from representation in Art, and also from Human Remains in the shape of mummies in the Andean regions, that from fairly ancient times a people of Caucasian affinities, tall, white, blond or brown-haired, and fully bearded, with aquiline noses, figured prominently in the development of civilization in both Mexico and Central America and in the Upper Andean tracts. Culture heroes from among this people have left their impress upon the civilizations of the New World —Maya, Nahua, Mixtec-Zapotee, Chibcha, Inca and others. This people appears to have formed some centres from which teachers and organizers of the native Mongoloid races came forth. They had their unique place in the scheme of things among the more advanced peoples of both North and South America. But after participating in the evolution of civilization and in the history of Mexico and Central and South America, this mysterious race vanished from the scene, leaving ample evidence of their presence in pre-Columbian Art (there are pictures and statues of this Caucasoid race, which still remain a puzzle in a land of Mongoloid Amerindians), and in human remains, as well as in native tradition. A branch of this Caucasoid race, as Heyerdahl makes it abundantly convincing, made its way into Polynesia.

Heyerdahl has speculated a little about this Caucasoid people in America. He thinks that they were a prehistoric European people with Nordic affinities and character who drifted from West Europe through North-West Africa into the Canary Islands and then into the Azores ; and groups of this people followed the westerly currents along the Atlantic and found themselves in Central America and Mexico, whence they subsequently spread into Peru and Bolivia. There is plenty of evidence of the presence of this tall, yellow-haired and fair-skinned Caucasian people in the Canary Islands before the days of Columbus. But how they could develop into a benign and

civilizing Herrenvolk among the Amerindians of Mexico, Central America and South America, remains absolutely unexplained, although we cannot doubt the existence of this racial element as a civilizing force in pre-Columbian America.

So far as their origin in America from Europe is concerned, and so far as it is a matter of their civilization and speech, the riddle still remains unsolved; but the other part of Heyerdahl's thesis, that this Caucasoid element did actually come from Peru as a native American people to Polynesia some 1500 years ago, does seem to be established.

(2) The second basic element in the formation of the Polynesians was a yellow-brown Mongoloid race, to which Heyerdahl has given the distinctive name of *Maori-Polynesian*, which came to Polynesia from 1100 A. D. onwards, judging from native genealogies as current among members of this group. About this racial element, Heyerdahl makes a plausible postulation. They were a Mongoloid people from East Asia who came to America by way of the Japan coast, along the warm *Kurosiwo* current of East Japan Sea, and then along the Aleutian Islands to the fiord-like coasts of British Columbia. Here they developed the culture they had brought with them from their East Asiatic homeland. Their notable ocean-going craft consisted not of rafts but of fairly big canoes. In the second and third parts of the book (*Polynesia and North-West America*, pp. 71-178 and *The Road through Hawaiki*, pp. 161-178), this connexion between peoples of the American North-West, like the Tlinkit, the Haida, the Kwakutl, the Nootka and the Salish tribes is discussed. Linguistically, a new proposition is made—that of connecting Polynesian with these North-Western American languages. (It would thus appear that Polynesian, from this point of view, was the result of the language of this Mongoloid people over-laying that of the Caucasoids who came earlier from Peru, and also that of the black *Manahune* Negroids or Melanesians).

This second basic element of the Polynesians pushed far and wide in their big canoes, and the Maori invasion and colonization of New Zealand from Hawaiki (which Heyerdahl identifies with the Hawaii Islands and not with Savaiki in Samoa) in the 14th

century is just an extension of the race movement which started from British Columbia, where actually there is a maritime tract known as *Hakai* which Heyerdahl suggests is the original ***nidus*** of these Maori-Polynesians. This part of Heyerdahl's speculations is not so convincing ; but his general thesis about the origin and sea-wanderings of this second, Mongoloid element in the Polynesian people seems to be quite convincing.

(3) About the third element—the black-skinned Melanesian-like ***Manahune*** people, Heyerdahl is not so convincing, and he himself has no definite theory to offer, though he has nevertheless made some suggestions as to wherefrom and in what way they came to Polynesia. His idea is that this Melanesian element in Polynesia was due mainly to the Polynesians (as a composite people made up of a fusion of the Caucasoids and the Mongoloids) themselves going East to Fiji and other Melanesian islands and bringing serfs and labourers from there ; and these Melanesians spread along the islands of Polynesia as a more or less helot group. From the Melanesian area the Polynesians procured not only these black people for supplying labour in building their terraced pyramid-temples and other structures, but also certain objects of economy—the pig, the fowl, the dog, some cultivated plants like the breadfruit, the yam, the banana and a finer kind of *taro*, as well as the outrigger canoe.

This is quite a plausible theory, although it is not satisfying ; and one has to consider to what extent the black *Manahune* people had been established in Polynesia as one of the component elements in its population. In some cases, they seem to have preceded both the Caucasoids and the Mongoloids. If they had come of themselves from Melanesia East into Polynesia, by going counter to the East-West current of the Central Pacific, then one of the strong points in favour of Heyerdahl's theory of only East-West sailings and migrations, excluding West-East movements, would be seriously affected. This matter seems to leave the question open in some of its aspects. Other anthropologists do not ignore the likelihood—in fact, fully support it—of sailing canoes from the West with occasional winds in their

favour and by means of paddling also coming to the East (Polynesia) from the islands of the West (Melanesia and Indonesia).

Thor Heyerdahl has brought in the fullest documentation in support of his views as to the coming into Polynesia of the Caucasoid Peruvian and the Mongoloid North-West American components of the Polynesian people. The mere titles of the various Parts of his book just give a brief indication only of the various types of material, quite extensive and varied in their *ensemble*, to support his arguments. Each of these topics forms a fascinating subject by itself, and withal, generally convincing. The affinities between Peruvian archaeology of pre-Inca times and Polynesian archaeology attributable to the Caucasoid settlers are most strikingly demonstrated with plenty of illustrative plates. The data for the postulation of the mysterious white Caucasoid Herrenvolk in Mexico, Central America and Andean America are given in all their details, with a wealth of illustrations from artifacts and from human remains which appears never to have been brought together before in a single volume. So, too, with the history and technique of American sea-going rafts. Community of place-names between pre-Inca Peru and Polynesia, and between North-Western America and Polynesia, is equally striking, but its linguistic basis still remains to be worked out. In their actual cultural milieus, Heyerdahl has made an inventory of many things which are common to Peru and Polynesia : e. g., a kind of picture-writing ; *quipus* ; astronomy and calendar system (Heyerdahl thinks that the pre-eminence of the constellation Pleiades which we find in Polynesia is paralleled by a similar thing in Peru : incidentally, it is to be noted that the Polynesian word for the Pleiades, *Matariki*, has a strange resemblance to one of the Sanskrit words for it, viz. *Mātṛkā*) ; *kava* in Polynesia, the ceremonial drinking of a salivary ferment, comparable to *chicha* of Peru ; absence of betel-chewing ; trepanning of wounded skulls, the venesection bow ; mummification ; music—common instruments ; clothing—feather cloaks, feather head-dresses of similar type, and the *poncho* ; ornamental patterns ; mirrors of polished stones ; jade or nephrite charm-figures ; stilts ; agriculture with the digging stick ; similar type of fishing hooks and methods of fishing ;

—all these, and some more, show a common basic culture for both Peru and Polynesia. But, as said before, the absence of an important food-grain like the maize, and of the potato, as gifts from Peru, remain unexplained.

Then again, there are certain fundamental notions of religion and cosmology, of Gods and rites, as well as myths and legends, which appear to link up Polynesia with America, particularly pre-Inca America.

The present reviewer in an article on *India and Polynesia : Austric Bases of Indian Civilisation and Thought* (in *Bharata Kaumudi*—Studies in Indology in Honour of Dr. Radha Kumud Mookerji, Allahabad, 1945, Part I, pp. 193—208), following the hitherto-accepted theory of the Western i.e. Indian and South-East Asian origin of the Austric (Austro-Asiatic and Austronesian) people with whom the Polynesians were partly at least linked up, sought to explain some affinities between Vedic India and Polynesia (including ideas regarding cosmogony and the occurrence of some common words—e.g. Vedic *tābuva*—Polynesian *tabu, tapu,* Sanskrit *rākā* 'full moon'—Polynesian *raka* or *ra'a* ; Sanskrit *Kuhu* 'new moon'—Polynesian *Kuu* ; Skt. *Mātṛkā*—Polynesian *matariki*) as being due to the intrusion, into the world of the Aryan-speaking people of the Vedic Age, of ideas, notions and customs as a substratum from the basic Austric people of the North Indian plains who were Aryanised in language and contributed an important element in the formation of the Hindu people. This view will not suffer in probability even if we accept Heyerdahl's theory of a Mongoloid people in Eastern Asia (and Eastern Asia is not a far cry from either South-Eastern Asia or India ; and besides, we have to note the presence of a *Kirāta* or Mongoloid people in North India who appear to have already been in the plains of North India and the sub-Himalayan tracts even before the Indo-Aryans came into India) sailing by way of the *Kurosiwo* current along the east coast of Japan and reaching the north-western coast-lands of America—only to spread from there to Polynesia to make these islands their final home.

Thor Heyerdahl's book on *American Indians in the Pacific*

will remain a great classic, and a sumptuously got-up one, in the literature of Anthropology, and will be quite a landmark in the study of human migrations and cultural diffusions. It is at the same time a significant work in the topic of *Pananthropotēs* or Universal Humanity—of *Viśva-mānavikatā*, as we say in India, following Rabindranath Tagore. We learn from the papers that Heyerdahl has taken up other promising field-work in prehistoric South American Archaeology, and we shall await with great interest his newer discoveries.

BOOK REVIEWS

Personality and Conflict in Jamaica. *By Madeline Kerr. 1952 : Liverpool University Press. Price 15 shillings.* $5\frac{1}{2}'' \times 8\frac{3}{4}''$ *pp. xii + 221. 18 plates with 37 illustrations.*

The present study of personality structure is based on field investigation among the agricultural population of the island of Jamaica. The inhabitants are descended from the Negroes who were brought here as slaves from the shores of Africa. There was subsequent miscegenation with the colonial white population giving rise to a series of graded colours among the present population. The original culture of the immigrants was also not of an integral character ; and as a result of conscious control exercised by the white employers, the mixed African culture was practically replaced by a rather debased imitation of the culture in vogue among the owner classes of the sugar plantations. But in spite of this, there has remained a certain amount of hang-over from the continental civilization ; and this has been rendered possible by the environmental circumstances under which the coloured people have been left under comparative social isolation.

Economically, the Jamaicans have never been allowed to lift their heads erect ; and the distinction of colour has been effectively employed to mark off one economic class from another. The habit of looking up to a middle class version of Victorian civilization as the highest value, and the fact that even that has remained frequently unattainable through economic destitution and social suppression, have all conspired to place the Jamaican individual under a series of severe handicaps in the way of free development. The result has been that most of the subjects laid under observation have shown a kind of warping both in the individual as well as the social sphere.

Thus, most individuals have given evidence of the growth of an introvert tendency with growing years. In social life, there has been a consequent manifestation of pathological culture

traits. Wild forms of religious revivalism, and a most unfortunate lack of self-confidence leading to conditions favouring autocracy have deen the prevailing characteristics of the society under observation.

The author conducted a fairly large series of projective tests, the detailed results of which yet await publication. One of her major achievements has been the correlation which has been established between the findings of her case studies and those attained through the analysis of institutional cultural facts in the economic, political and religious spheres.

There is only one point to which the reviewer wishes to draw the attention of the author as well as of future readers of the book under review. While discussing the causes of the habit of dependence and lack of self-confidence, the author has stated several times that this has probably been due to a carry-over of a predominantly matriarchal family organization from Africa to Jamaica. The mother, for various reasons, is supreme in her authority in the Jamaican household. This has, according to the author, led to under-development and a habit of dependence among grown-ups. And the motherly dominance is of traditional African origin. This however does not ring true to our Indian ears. India is predominantly a land of patriarchal family organization. Even in our old-type villages, age plays a large part in social status as well as authority in communal regulation. And this is mostly the prerogative of the males. Under such circumstances, too, personalities tend to become warped, and a habit of looking up to some form of adventitious aid may develop in the average individual. This may be conducive to the rise of a fear of ghosts, and to a faith in supernatural, magical beliefs and practices for the solution of problems which defy logical processes of attack, provided the ideas are prevalent in the culture environment. The point is, that personalities may become so suppressed under the shadow of a dominant personality that they may give rise to similar results, no matter to what sex the latter belongs.

One interesting line of investigation suggested by the above observation is to compare the kind and degree of personality

suppression in a predominantly matripotestal with a patripotestal family set-up.

But that apart, the book will prove valuable to all those who wish to understand personality structures in relation to the accompanying social environment under which individuals happen to be brought up.

N. K. Bose

Prehistoric Europe : The Economic Basis. *By J.G.D. Clark, M. A., Ph. D., F.B A., F.S.A. Fellow of Peterhouse. University Lecturer in Archaeology. 1952 : Methuen and Co., London. Price 60 shillings. 8″ × 11″. pp. xvii + 349 with 17 plates and 180 text illustrations.*

It is natural that in the early and formative period of the science of prehistory, its pioneers should be comparatively more interested in the study of tangible evidences of early man in the shape of stone and bone artifacts, and become specially concerned with their detailed classification and evolution. But this could not, by itself, be satisfying to the historian ; for, after all, his purpose is to reconstruct the whole life of man from the evidences left by him. Great workers like Sollas, for example, therefore tried to supplement the findings of typological study by a comparison with the life of modern savages like the Esquimaux, the Australian aborignes or the Bushmen, for some of the tools used by these tribes had a startling resemblance with those left by our early ancestors. The later works of prehistorians like Dorothy Garrod or Gordon Childe have gone a long way in perfecting the instrument of historcal reconstruction in so far as the very early period is concerned, and now comes a comprehensive and eminently valuable book in the shape of Professor Clark's *Prehistoric Europe* which is based on as much detailed evidence as is available today.

Professor Clark's book is divided into the following chapters : Ecological Zones and Economic Stages ; Catching and Gathering : Inland ; Catching and Gathering : Coastal and Maritime ; Farming : Clearance and Cultivation ; Farming : Crops and Livestock ; Houses and Settlements ; Technology :

Stone, Bronze, Iron ; Technology : Other Handicrafts ; Trade ; Travel and Transport.

These subjects are comprehensive in their compass, and give us a fairly adequate idea abut the economic state of our prehistoric ancestors. The choice of significant details gathered from excavations, the subtlety with which the small bits of evidence have been handled, afford ample intellectual satisfaction. We hope and trust that Prof. Clark's work will help considerably in consolidating the present status of prehistory as a very important and significant branch of Human Ecology.

N. K. Bose

Poison Damsels. *By N. M. Penzer, M. A., Litt. D., F. S. A., London. Privately printed for C. J. Sawyer Ltd. Grafton House W. 1. 1952.*

The book is a collection of four essays based on Appendices originally published in the author's edition of C. H. Tawney's *Katha-Sarit-Sagar*, the Ocean of Story. In every one of these the author has demonstrated how the same theme, e. g., the conception of beautiful damsels who have been nourished on poison since their birth and therefore bear the capacity to kill others by their touch, embrace or kiss, has found expression in the ancient mythologies of almost all countries. Modernised versions of the theme can be found even in the current stories of many lands. Poison Damsels, The Tale of the Two Thieves, Sacred Prostitution and the Romance of Betel-chewing, these are the four topics which have been elaborately dealt with in the volume.

To those interested in Social Anthropology the book, in its 300 pages, provides ample materials for study. In fact this collection of references constitutes the merit of the book and reflects the persevering zeal and the admirable research spirit of the author. The curious layman will feel greatly delighted to see that the stories which he himself heard from his grand-parents, were known not only to his grand-parents but to grand-parents in almost all the countries of the world from China to Peru.

S. C. Mitra

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Census 1951, West Bengal : The Tribes and Castes of West Bengal. *By A. Mitra of the Indian Civil Service. Superintendent of Census Operation and Joint Development Commissioner, West Bengal. 1953 : Superintendent, Government Printing, West Bengal. Government Press, Alipore, West Bengal.* 11″ × 8½″. *pp. 413. Price not mentioned.*

This invaluable book on the tribes and castes of Bengal is divided altogether into seven sections which are listed below. In the Preface (pp. 1—10), the author not only gives a brief history of census operations in Bengal in so far as castes and tribes are concerned, but also emphasizes certain aspects of the caste system which have generally been overlooked by several writers in the past. Mr. Mitra has shown very well how caste is not as rigid as it is generally supposed to be ; he has also shown how the system has been affected one way or the other by governmental interference, and in this he has reason to include even census operations of recent times.

The second section (pp. 11—81) entitled 'The Caste System in Bengal' is by Shri Sailendranath Sengupta of the West Bengal Judicial Service. The author discusses in detail, and in a very judicious manner, the various definitions and theories regarding the origin of caste. He has collected with great care the *shastric* traditions of origin and restrictions, and prepared an extremely valuable index of numerous castes who inhabit the State of West Bengal. The appendices containing an exhaustive list of castes and sub-castes, with references, will be appreciated by those interested in the social history of India..

The third section (pp. 83—198) contains detailed figures of the scheduled caste and tribes, district by district ; comparative tables from 1872 to 1951 ; scheduled castes by livelihood classes in 1951, and lastly population of scheduled castes and tribes by census tracts.

In the fourth section (pp. 199—292) a selection from authorities on castes and tribes has been presented with great care. These consist of extracts from the writings of Sherring, Risley, Gait, Dalton and O'Malley, and cover various aspects of marriage, inheritance, social organization, religious

practices, as well as early accounts of tribes who are now included in the scheduled list. Gait's description of the Muhammadans of Bengal also finds a place in this section.

The fifth section (pp. 293—350) entitled 'The Artisan Castes of West Bengal and their Craft' by Sudhansu Kumar Ray is a new feature; and has evidently been prepared after careful field investigation. The castes covered are the painters, potters and clay-modellers; architects and architectural wood-carvers, ironsmiths, goldsmiths, makers of bell-metal, makers of garlands, conch-shell bangles and weavers. This section, in particular, with its well-executed illustrations, will be deeply appreciated not only by anthropologists but also by lovers of the art and folk civilization of Bengal.

The sixth section (pp. 351—360) by Asutosh Bhattacharyya is formed by an essay on Dharma worship in West Bengal.

The seventh section (pp. 357—406) entitled 'The Racial Composition of Bengalees' contains one essay by Professor K. P. Chattopadhyay, a note by Sailendranath Sengupta and anthropometric measurements compiled from Risley.

The Superintendent of census operations will earn the gratitude of all students interested in the people of Bengal for this invaluable volume, not only for bringing together a large amount of new material, but also for having made available various essays or papers which are difficult to secure even in public libraries.

N. K. Bose

Caste in India: Its Nature, Function, and Origins. *By J. H. Hutton, C. I. E., M. A., D. Sc. Professor Emeritus of Social Anthropology in the University of Cambridge. London: Oxford University Press, Amer House. Second Edition 1951. Price Rs. 10/-. 8¾" × 5½". pp. x + 315 + 2 maps.*

The first edition of Professor J. H. Hutton's *Caste in India* was published in 1946 by the Cambridge University Press. We have now a second edition printed in India and published by the Oxford University Press. On a careful comparison, it is evident that the present edition is practically a reprint of the original, except for slight additions and alterations here and there.

Thus, on pages 142-3, the author has introduced three new paragraphs to illustrate analagous institutions from some parts of modern Africa. On page 173, he has quoted in a footnote Prof. Vesey Fitz-Gerald's observations on a caste-like structure among Muslims in Algeria and some Ismaili sects in India. Linton's view that it was an easy matter for caste to develop in India because India, or a part of it, formed 'part of the Austronesian fundamental pattern of organization on the basis of small endogamous groups' has similarly been quoted in page 180.

The major thesis of Professor Hutton has remained the same ; and we have therefore to bring the present review to a close by a longish quotation from a review of the first edition in *The Modern Review* of May 1949.

'According to Dr. Hutton, the food and marriage restrictions associated with caste, which he considers to be two of the most important elements of the system, have been contributed by certain pre-Aryan civilizations, remnants of which are even now observable among some of the remote hill-tribes in the east of India. A number of other features have taken their rise from the clash of cultures between the patriarchal Aryan-speaking conquerors and the defeated party professing a matriarchal system, and speaking a non-Aryan language, and having numerous Mediterranean cultural, historical affinities.

'The book is very carefully written, and relevant facts regarding the *origin* of the system have been gathered with admirable care. But the reviewer feels that two points have been under-estimated in Dr. Hutton's description of caste as a social phenomenon. Theoretically, he has been led into a position which is like this : Some crucial elements of caste were contributed by a matriarchal, as well as by another culture professed by tribes having proto-australoid or even 'negrito' racial affinities, and these elements have been retained in course of the last many centuries. But the question is, how is it that so many elements, and particularly the critical ones, have succeeded in continuing practically unaffected by subsequent history ? What is the cause of this unique persistence ? Or is it that there has also been changes in the 'function' of different elements, and, if so, what was their nature ? If Dr. Hutton had

entered into these questions, which the reviewer feels he has not done in an adequate measure, then he might have landed upon some other aspects of caste which would have been of use in answering the questions posed above.

'By way of illustration one might suggest the following problems. Why is it that Muslims in the rural areas should practically succumb to the system even when the central authority was in Muslim hands? How is it also that reformers, beginning from Buddha down to Rammohun, were all practically defeated, and the casteless societies which they proposed to build up were themselves turned into groups analogous to endogamous castes; and thus served to swell the number of castes instead acting as a solvent?

'Dr. Hutton's analysis of caste and his description of its essential features does not throw any light on these very crucial problems which have got to be answered before we can really understand caste. Secondly, he seems to have under-rated the various deliberate movements initiated from time to time for the purpose of giving a conscious turn to the system itself. The role of history has been under-estimated, the role of economic and social co-operation *between* the different castes has been given less than its due.

'In his study of caste, Dr. Hutton has taken more pains to show how each bead in the garland of the caste system came into being, how they were ground down into a, more or less, uniform pattern; but he has hardly done justice to the thread which holds together the separate beads. He has even less to say upon how the thread itself has careered in course of its own history; why and how it was replaced, from time to time, by new ones, and so on.

'In spite of this feature, the book will undoubtedly remain a useful addition to the literature on caste in India. This is true not only on account of the very valuable suggestions regarding the origin of food or marital taboos; but also because the reader will find gathered together here numerous references as well as a summary of what many others have already said about the system'.

N. K. Bose.

History of Ancient India and Culture, (upto 1000 A. C.) *By Prof. M. F. Lokhandwala of Baroda. Demy. 226 pp.*

The title of the book is defective. Loose and wrong information seems to be its characteristic. 'It is very difficult to say when man inhabited India. It may be remotest antiquity, hundreds of thousands of years when human beings made certain parts of India their homes.' Discussing about the different races who inhabited India in order of preference, he says, 'a dark Negro-like race of low culture bearing physical features resembling the the Dravidians. These people were of unknown origin but they had affinities with the Australians'. Such statements should have no place in any book of history today.

He has given undue prominence to the discussion of mythological kings of the solar and lunar dynasties, and places Mandhata in 3300 B. C. Such instances may be multiplied. The author has arbitrarily divided the historical periods into different ages. He forgets that some of the Brahmanas in the earliest parts are co-terminous with the later portions of some of the Vedas. He has ignored Buddhist and Jaina sources and adopted the Brahmanic ones even with all their period inconsistencies. The section covering pages 43 to 81 is a mixture of unacceptable, inconsistent and contradictory chronology of mythological kings with accepted history. Strangely enough, he discusses Buddhism after Alexander's invasion. The date of Gautama's death is given as 177 A. D. without any arguments advanced in its favour.

P. Banerjee

Ecole Francaise d Orient

In the XXXIIIth volume of the '*Publications de L'Ecole Francaise D'Extreme orient*', Jeanne Cuisinier publishes the prayers which accompany the agrarian rites, viz., ploughing, sowing, transplantation, hoeing and harvesting. She gives the original text together with literal translation in French.

The same French School of Far East is publishing a collection of Texts and Documents of Indo-China. In the 4th volume G. Coedes gives us a study and translation of a series of inscriptions discovered in the three successive capitals of Cambodia.

Culture and Language

The Institute for Ethnology of the Vienna University has published a book on culture and language edited by Wilhelm Koppers, a Catholic priest belonging to the Society of the Divine Word, with the co-operation of Robert Heine-Geldern and Joseph Haekel.

The first part of the book deals with Ethnology. The second part deals with Linguistics and the third part with Prehistory.

The first part of the book, devoted to Ethnology, contains articles on Method, Religion and Cult, Sociology, Medicine and some problems of Migration in the Pacific. The second part deals with Linguistics with five articles. The third and last deals with Prehistory and consists of only two articles. X

Indian Dancing. *By Ram Gopal and Serozh Dadachanji. 1951 : Asia Publishing House, Bombay. Price 16 shillings. 9½" × 6". pp. 119 with 94 illustrations in monochrome.*

During the last two decades there has been a revival of interest in Indian dancing, the exponents of which have tried to rescue it from the cloistered shelter of Indian temples, or from the limited patronage of royal courts, and tried to offer it for enjoyment to the larger mass of ordinary citizens who reside in the towns and villages of our country.

The language of gestures and movements which grew up in comparative isolation, either in one corner of India or among one small section of the population, naturally became so sophisticated in course of the long centuries of our history, that their meaning was mostly lost to the uninitiated public. It is therefore in the fitness of things that a growing desire to *understand*, as well as to enjoy, should be in evidence among the interested public. The book under review will help in this object in a satisfactory manner.

After giving a brief review of the history of Indian dancing, the authors have explained the language of gestures in some detail. Then comes an explanation of the elements which make up Bharata Natyam ; followed by a rather brief

chapter on Kathakali. In the succeeding two chapters, the dances of Northern and Eastern India are described; and it is also explained how these two are more secular in character, in contrast to the essentially religious nature of South Indian dances. Then comes a rather very much compressed comparison between Eastern and Western dancing. In the following chapter, we are treated with a short account of the recent revival of Indian dancing, and of its characteristic trends. The authors have ended with an appeal to bring the traditional dancing of India in tune with the hopes and aspirations which inspire the life of India today. Their suggestion is that this can best be promoted by the establishment of a central institute of dancing under the patronage of the State.

The photographic illustrations are of fine quality, and will be of great service in presenting clearly the meaning of the poses and gestures as given by the authors. Some of the meanings, we confess, are of a mystical nature; but this is inevitable in respect of an art which can be appreciated, not so much through intellectual understanding as through emotional identification, i. e., 'realization.'

N. K. Bose

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